

?

This is a DOS box like command window. Command names are split into Subject Areas and Operations (e.g. 'Document.Open'). Commonly used Subject Areas are...

ActiveDocumentTracking AnyCad APIDebug APIUI Application ArrangeCommand Asset  
Associative AutomatedModeling AutoSave BrowserCache C3MFOpenOptions CircuitBreaker  
Clocks CloudBrowser CloudFileStore Commands CompanionApp Component  
DebugCommands Decal Diagnostics Document DocumentTab Electron Entity  
EntityChange EntityTracking EOT ExportCompliance Expressions ExtensionsFlyout  
Fusion FUSIONDOCSEVER FusionMaterials FusionStaticFilesBanner FusionTranslator  
GenericFileUploader Geometry GlobalCoordinateAxes Graphics HealthCheckService  
HotKey Instance IPC JavaScript Joints LocalToWorld Managed Manipulator  
MaterialLightEdit Materials Matrix MetaTypes Metrics MSFCmnFeatTableWidgetCmd  
MSFNestComponentSources MSFNestComponentTableCmd MSFNestNameConventionCmd  
MSFWmdCompManagerCmd MSFWmdComponentSources MSketch NamedView Network  
OBJOpenOptions Options ParaMesh PAsset Paths PBody PCB pcb3d PComponent  
PEntity PFusionDocumentation PInstance PInterface PlasticParts POccurrence  
Preferences PreviewablePanel PScene PSelections PTransaction Python Refs  
Render SATOpenOptions ScopedLocks Selections SheetMetal Sketch Smoke  
STLOpenOptions StrongRef Survey TextCommands TextureMapping Toolkit Translator  
TranslatorOptions UI Units UnitSystems Validation ViewCube ViewFragment V0  
Window WM WorldToLocal

There are 146 hidden (i.e. seldom used) Subject Areas – use ?? to include these Subject Areas in this help information. Use '/?' to get help on a Subject Area or specific Command (e.g. 'Document /?' or 'Document.Open /?'). Use <TAB> to auto-complete a Subject Area or Command. Use 'TextCommands /?' to get a list of meta commands (e.g. TextCommands.List). You can pipe output to a file using the normal convention.

TextCommands.List

ActiveDocumentTracking

ActiveDocumentTracking.ShowFileLimitNotification – Show the file limit notification.

AnyCad

AnyCad.choseVersion

– Choose Version AnyCAD

AnyCad.downloadWay

– [/ds] http request DS to download. [/oss\_ds]

oss download by ds url. [/oss\_s3] oss download by s3 url

AnyCad.getFusionAnyCADEndPoint

– get the end point of AnyCAD service

APIDebug

APIDebug.addIn	- get add-in details
APIDebug.addIns	- get list of add-ins
APIDebug.downloadAddIn	- get add-in archive file path
APIDebug.EventHandlers	- [<Script ID/Path>] Get all the connected
EventHandlers, optionally only for the specified script.	
APIDebug.InstallAddIn	- install add-in with input id
APIDebug.licenseDetails	- get add-in licesne detail
APIDebug.Objects	- Get all the alive API objects.
APIDebug.RecordType	- Pass 2 to process class level records and 3
for function level records	
APIDebug.ReleaseEventHandlers	- <Script ID/Path> Release all the connected
EventHandlers for a script.	
APIUI	
APIUI.DefaultCommandType	- get or set the default command type
Application	
Application.ActiveEntitlementId	- Provide the entitlement id of the currently
active/launched application	
Application.AssignStudent	- Add edu to the current user
Application.bit	- CLIC license JWT bitmask testing
Application.Cache	- Open cache folder
Application.CloseAfterStartup	- Close application after starting up from
command line	
Application.DeleteEntitlement	- Delete specified entitlement
Application.EntitlementInformation	- Provide a structure full of information
related to currently registered applications and entitlements.	
Application.ExeIdleTasks	- During regression tests, after a unit test,
give the idle tasks have a chance to be executed	
Application.GetEnv	- Get process environment variable
Application.IsOfflineEntitled	- Display state of offline entitlement.
Application.LastLicenseRequest	- CLIC license request and response history
Application.lattr	- Describe jwt lattr and lattr_mask
Application.LemonTest	- Start up and shutdown test with server
regression test from command line	
Application.LicenseBatchSize	- Override CLIC license batch size
Application.LicenseInformation	- CLIC licensing information
Application.ListIdleTasks	- Get current counts of idle tasks for test

purpose	
Application.Log	- Open current applog using default
application	
Application.MouseLatency	- [<value>] Display/Control the artificial
mouse latency added to simulate networking	
Application.ObjectCount	- <FileName> Dump the in-memory object counts
of various classes	
Application.RefreshEntitlements	- Provide a text command to refresh
entitlements.	
Application.RegressionTest	- Regression test during startup.
Application.Report	- [/currentUserOnly]
Application.RestoreWindowSize	- Restored Window size
Application.SetEnv	- Set process environment variable
Application.SetSoftwareVersion	- <VersionString> Set the software version to
the specified value, in the format Major,Minor,BuildNumber	
Application.SetWindowSize	- Set Window size
Application.SoftwareVersion	- Get current software version
Application.SoftwareVersionInfo	- Get current software version information in
a JSON string	
Application.StartupTime	- Get startup time span of Neutron Application
Application.TaskTiming	- [/on] [/off] [/deferred] [/clear] Returns or
controls task timing info for idle tasks (or, via a switch, for the deferred tasks)	
Application.Unsuppress	- Prevent application closing after running
text commands from command line	
ArrangeCommand	
ArrangeCommand.ChangePreview	- Change the preview.
Usage: ArrangeCommand.ChangePreview <true/false>	
Asset	
Asset.Activate	- <asset name> [<document path>] Activates the
passed asset in the passed or current document	
Asset.Close	- Closes the active asset
Asset.Create	- <AssetTypeId> [<DocumentPath>] [/Hidden]
Creates a new asset inside the given or active document	
Asset.Export	- <filename> Export the active asset as *.sat,
*.step or other translator supported file types.	
Asset.List	- List all names of asset in program

Asset.ListDirty	- Lists the dirty/smudge flags on the current
asset	
Asset.Path	- Gets a path (<document path> <asset name>)
for the active asset	
Associative	
Associative.ReImport	- <filepath> Specify the file path to be
imported.	
AutomatedModeling	
AutomatedModeling.Host	- Get/Set host, valid host name examples:
http://localhost:3000 (or "local"), http://ecs-6026ceaa.ecs.ads.autodesk.com (or "ecs"). Use	
"default" to restore default settings.	
AutomatedModeling.Log	- [/Off /Normal /Debug] Enable/disable logging
of AM related activity	
AutomatedModeling.Recipe	- [/Path] Execute a recipe from JSON file
AutomatedModeling.SaveScalarisData	- Write a scalaris folder to disk.
AutomatedModeling.SetServerCheckIntervals	- [/interval_name interval_value] Set
intervals values for AMJobController. You can provide more than one in single command.	
AutomatedModeling.SolverConfig	- Loads solver custom metadata from JSON
config file	
AutomatedModeling.ToggleFeature	- It toggles ON/OFF given Feature Types for
Generative Modelling. If used with no parameters displays available options. [/Features...]	
AutomatedModeling.ToggleSolver	- It toggles ON/OFF given solvers for
Generative Modelling. If used with no parameters displays available solvers. [/Solvers...]	
AutomatedModeling.WaitForSolvers	- Wait until either unfinished solvers are
done or timeout is reached	
AutoSave	
AutoSave.ClearCrashRecoveryFiles	- Clear all crash recovery files
AutoSave.FinishAutomation	- Clears the options flags required to record/
replay Autosave automations	
AutoSave.ForceCrashRecoveryBackup	- <SessionWideID> Force the backup of the
given document, or the last one, for crash recovery purposes	
AutoSave.GatherDiagnostics	- <directoy> Gather the crash recovery files
in input directory	
AutoSave.InitforAutomation	- Sets the options flags required to record/
replay Autosave automations	
AutoSave.NotifyAutoSavedFiles	- Notify backup files that can be recovered.

AutoSave.Recovery	- Do recovery process of auto-saved files
AutoSave.RemoveCrashRecoveryFile file	- <fileName> Remove a specific crash recovery
AutoSave.ShowCrashRecoveryDialog	- Show Crash Recovery Dialog
AutoSave.Status	- Dumps general status regarding auto-save
BrowserCache	
BrowserCache.GetActiveTeamHubInfo hub	- Get hub information if active hub is team
CircuitBreaker	
CircuitBreaker.FailureCountSinceLastReset for [/ServiceId]	- Get the total failure count since last reset
CircuitBreaker.ForceOpen open	- Increment error count for /ServiceId until
CircuitBreaker.IncrementErrorCount N]	- Increment error count for [/ServiceId] by [/
CircuitBreaker.IncrementSuccessCount [/N]	- Increment success count for [/ServiceId] by
CircuitBreaker.State	- Get state of [/ServiceId]
CircuitBreaker.SuccessCountSinceLastReset for [/ServiceId]	- Get the total success count since last reset
CircuitBreaker.TotalCallCount	- Get the total call count for [/ServiceId]
CircuitBreaker.TotalCallCountSinceLastReset for [/ServiceId]	- Get the total call count since last reset
CircuitBreaker.TryHalfOpen ServiceId]	- Poll for service availability for [/
Clocks	
Clocks.Clear	- Clears all the clocks
Clocks.Report	- [/File] Reports all the clocks. Optionally
Specify a file path to dump the results	
Clocks.SimpleReport	- [/File] Reports all the summaries.
Optionally Specify a file path to dump the results	
Clocks.State	- [/on] [/off] Enable, disable or report on
the use of clocks	
CloudBrowser	
CloudBrowser.CreateLibrary	- create a library
CloudBrowser.GetActiveHubType	- Get the type of active hub, whether it's

personal or team hub

CloudBrowser.Release

CloudBrowser.SwitchToAutomationTeamHub

CloudBrowser.SwitchToNonAutomationHub

CloudBrowser.Workflow

CloudFileStore

CloudFileStore.ClearFileCacheForTest

in automation test

CloudFileStore.RepairMissingContent

Content - <seconds> Option background delay

CloudFileStore.UploadStats

queues and threads

Commands

Commands.ActivateTableCommandInputRow

Commands.AngleManipulatorEvent

Commands.BrowserNodeState

Commands.CaptureOrRevertPosition

CaptureRevertPosition.

Commands.ChildItemSelect

of an input

Commands.ContextMenu

Usage: Commands.ContextMenu <Keyevent>

Commands.CreateCallout

Commands.CreateNewRadiusPoint

Commands.DragCallout

Commands.DragTrail

Commands.EditCallout

Commands.EnableSelectionInput

enabled

Commands.environment

groups

Commands.ExistingDocumentName

existing

Commands.ExplodeManipulatorEvent

Commands.healthStatusVisibility

Commands.InjectionPointAddEvent

- Releases the version

- Switch to automation team hub

- Switch to non automation hub

- Execute cloud browser workflow

- Clear all files in the F folder. Only use it

- Attempt to repair designs with Missing

- [/v] Dumps current status of the Upload

- Activate row in the table

- Fire Angle manipulator event

- Returns the state of the Browser Node

- Record user option for

- Given a target label set the selection state

- Send out a context menu event.

- Create a callout from script.

- Create radius point from 3d point position

- Drag a callout from script.

- Drag a trail from script.

- Edit a callout from script.

- MakeSure the given selection input is

- [/All] List active environment and command

- Record document name for replay push to

- Fire explode 3d manipulator event

- Toggle visibility of health status command

- Add injection location event

Commands.InjectionPointDragEvent	- Drag injection location event
Commands.InsertPointParam	- Given a target label set a double of
inserted point parameter as its value	
Commands.JointConflictContinueOrRevert	- Record user option for JointConflict.
Commands.KeyPressDown	- Send out a key press event.
Usage: NuCommands.KeyPress <KeyCode> <IsRepeat> <Modifiers>	
Commands.KeyReleaseUp	- Send out a key release event.
Usage: NuCommands.KeyRelease <KeyCode> <IsRepeat> <Modifiers>	
Commands.ListCtrlSelCmdInput	- Process selections list control events for
ListCtrlSelectionCmdInput	
Commands.LoftProfileDoubleClick	- Process double click event for
LoftProfilePOPCommandInput	
Commands.logError	- Log an error entry
Commands.logWarning	- Log a warning entry
Commands.ManipulatorEvent	- Fire transform 3d manipulator event
Commands.NewDerivedDocument	- Record document id for replay id mapping
Commands.Pick	- <Point3D> <BRect> Select an object using a
pick ray.	
Commands.PipeSectionInsertionPoint	- Section insertion point from 3d point
position	
Commands.PlaneManipulatorEvent	- Fire transform plane manipulator event
Commands.PreSelection	- Given a target label force a preselection
event through a SelectionCommandInput	
Commands.Presets	- Use /clear /clearFromActiveCmd /
clearFromAllCmds to clear presets from specific, active or all commands.	
Commands.PreUnSelection	- Given a target label force a preselection
unhighlight event through a SelectionCommandInput	
Commands.ReplaceCanvasImgCmd	- Replace Canvas Image.
Commands.Select	- Select an object using ONK.
Commands.SelectAt	- Select an object using selection state name
and input 2d point	
Commands.SelReorderCmdInput	- Process mouse press event for
SelReorderCommandInput	
Commands.SetBool	- Given a target label set a bool as its value
Commands.SetButtonValue	- Given a target label set a bool as its value
Commands.SetCanvasPoints	- Given a target label set points as its value

Commands.SetChainPickSelection	- Select an object using ONK.
Commands.SetCircularGridEntrySuppressed	- Set Circular Grid entry suppressed
Commands.SetCurrentTime	- Set the current time of one sequence entry.
Commands.SetDeleteKeyInput	- Trigger change event on Delete Key Press
Commands.SetDouble	- Given a target label set a double as its
value	
Commands.SetDoubleValue	- Given a target label set a double as its
value	
Commands.SetDoubleValues	- Given a target label set a double as its
value	
Commands.SetDragPointInput	- Given a target label set a point drag apoint
as its value	
Commands.SetExplodeDirection	- Set the Explode direction
Commands.SetFeatRuleSettingsEditData	- Given a target label for input, sets
FeatRuleSettingsEditData as its value	
Commands.SetFileString	- Given a file path set a string as its value
Commands.SetFolderString	- Given a folder path set a string as its
value	
Commands.SetGroup	- Set group status value
Commands.SetImageFileString	- Given an image file path set a string as its
value	
Commands.SetInferSelection	- Give an Infere Selection using ONK and the
pick poistion.	
Commands.SetInferSelection1	- Give an Infere Selection using ONK and the
pick poistion.	
Commands.SetIntValue	- Given a target label set an int as its value
Commands.SetIntValues	- Given a target label set an int as its value
Commands.SetJointDOF	- Given a target label set a JointDOF as its
value	
Commands.SetJointOriginDefinations	- Given a target label set a joint origin as
its value	
Commands.SetParameterEditData	- Given a target label set a ParameterEditData
as its value	
Commands.SetPatternOnPathOccurrencToggle	- Given a target label set a occurrence toggle
as its value	
Commands.SetPoint3D	- Given a target label set a point3d as its



value	
Commands.SetPreciseSelections	- Does change to selection in precise manner
Commands.SetRectGridEntrySuppressed	- Set Rectangular Grid entry suppressed
Commands.SetRetopoPoints	- Given a target label set points as its value
Commands.SetRotation	- Given a target label set a rotation
transform as its value	
Commands.SetSelectedCells	- Select cells using id.
Commands.SetSelections	- Given a target label set a transform as its
value	
Commands.SetSheetMetalSettingsEditData	- Given a target label for input, sets
SettingEditData as its value	
Commands.SetSimThermalFluxValue	- Given a target label set a thermal flux as
its value	
Commands.SetSnapPoint	- Given a target label set a joint origin as
its value	
Commands.SetStoryboardSelections	- 0/1 [Onk] Clear the storyboard(1)/
sequence(0) selection set, Or create a selecton if	a Onk is specified.
Commands.SetString	- Given a target label set a string as its
value	
Commands.SetTabIndex	- Given a target label set an int as its value
(tab index)	
Commands.SetTextAreaString	- Given a target label set a textAreaString as
its value	
Commands.SetTransform3D	- Given a target label set a transform as its
value	
Commands.SetTranslation	- Given a target label set a transform as its
value	
Commands.SetTSplineVertPoint	- Given a target label set points as its value
Commands.SetVector2d	- Given a target label set a vector3d as its
value	
Commands.SimSetUnitsOverride	- Set a Simulation units override value in a
transcript	
Commands.Start	- Start an available command
Commands.StartClippingPlaneXform	- Parse the transcription string for the
Create Slice Plane start command	
Commands.TimeLineButton	- Record TimeLine Button.

Commands.TimeLineGroup	- Record TimeLine group expand/collapse.
Commands.TreeCommandInput	- Process tree control events for
TreeCommandInput	
Commands.TrimPreSelection	- Given a target faces force a preselection
event through a SurfTrimSelCommandInput	
Commands.updateTime	- [CommandId] [NeutronOnly] [/HideBlocked] [/ ShowState] [/All] [/OnlyCmdsInEnv   [/Limit <num>]
Report cmds that take > limit (default 30usec).	
Commands.UserOptionForDeleteFeatures	- Record user option for features delete.
CompanionApp	
CompanionApp.Open	- <filepath> [/ OpenForCompanionApp=CompanionAppName] [/option1=value] [/option2=value]...
Specify the file path to open, these options are optional.	
Component	
Component.AnalyseHierarchy	- Counts the number of unique Components, Component Occurences , Joints and type of Joints and Maximum Depth of an assembly
Component.BodyMaterial	- get the selected body's visual material
Component.BodyVisibility	- [/Off] [/On] Changes or reports on the selected body's visibility
Component.BoxNode	- Create a box node at given position with given size!
Component.BReps	- [/checksum] Gets information on the component bodies, use root component or first selected component
Component.buildCompBrep	- </background>Build the select document's component brep data
Component.ChangeCircleArcNode	- Change most recently created circleArc node to have given position, radius and angle!
Component.CircleArcNode	- Create a circleArc node at given position with given radius and angle!
Component.ConeNode	- Create a cone node at given position with given direction and size!
Component.Counts	- [/NoOverrides] Traverses the entire logical structure using and not using the overrides
Component.CreateBrowser	- [/L] [/R] Create a new Browser docked at Left or Right
Component.CreateSimpleAssembly	- [/MultiInstances] Create an simple assembly

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to test entity tracking
  Component.DeleteInstance          - Deletes the selected instance
  Component.dumpCompBrep           - Dump the select document's brep data
  Component.EllipseArcNode         - Create a ellipse node at given position with
given major/minor radius and angle!
  Component.GetAllLatest           - Get latest version of all the referenced
component - this defaults to the root component for the current asset
  Component.ImageNode              - Create a Image node at given position with
given image path!
  Component.Info                   - [/NoOverrides] [/Bodies] [/Instances] [/
PathsIn] [/PathsOut] [/Instancing] Shows useful information on the selected occurrence
  Component.InspectReferences      - Inspects the correctedness of the outgoing
references from the selected occurrence
  Component.InstanceDraw           - Test for instance draw.
  Component.MaterialInfo           - [/VisualOnly] [/Both] [/ConsistencyCheck] [/
ListMaterials] Gets information on material usage in the root component
  Component.NurbsCurveNode        - Create a NurbsCurve node with given points!
  Component.OverrideMassProps     - </Volume | /Area | /Mass | /Density> [/
Clear] <Value> Reports on, sets or clears mass property overrides in the selected body or
component
  Component.PolyLineNode          - Create a PolyLine node with given points!
  Component.RandomMaterials       - [/VisualOnly] [/Both] Randomly sets the
physical and / or visual material in the bodies - useful for testing
  Component.Rename                 - Renames the selected or the root component
  Component.SetPhysicalMaterial    - Set PhysicalMaterial for selected body
  Component.SetVisualMaterial      - Set VisualMaterial for selected body
  Component.SphereNode            - Create a Sphere node at given position with
given radius!
  Component.TimeGetComponentState   - /NoEarlyReturn /NoContext /CacheInstances
[count] Time how long it takes to find if there is a body in the component
  Component.ToggleBrowser         - Toggle Browser display
  Component.TorusNode             - Create a torus node at given position with
given major/minor radius!
  Component.Visibility             - [/Off] [/On] Changes or reports on the
selected component's visibility
DebugCommands

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DebugCommands.ActiveAsset	- Get the active asset of the current session
DebugCommands.ActiveCommandInfo	- Shows info on the ActiveCommand and its
inputs	
DebugCommands.AlertDialog	- Display Sample Error Diloag
DebugCommands.availableCommands	- Report available commands
DebugCommands.BodyCacheUpdateMgr	- [/On /Off/PIM /Clear] [max threads (0+) [min
time between checks (0+ ms)]	Background body mass property calculations
DebugCommands.DownloadError	- Shows update download error for test purpose
DebugCommands.FrieFeaturePackNotification	- <packId>Fire out a FeaturePack notifaction
for test purpose	
DebugCommands.IgnoreAssert	- Whether ignore assert for fusion
DebugCommands.InfoCount	- Returns the number of existing Nu::Info
objects, used to find leaks	
DebugCommands.ListCommandDefinitions	- [/CountOnly] [/Summary] [/ExtendedOnly] [/
AsXML] [Id]	Lists all the command definitions or just gives a count; the list can be restricted
to a single command if an id is specified	
DebugCommands.ListTranscriptedCommandDefinitionClassName	- [/PredefinedOnly] [/CloseAfterDone]
Lists all the transcripted command definitions	
DebugCommands.ListTranscriptedCommands	- [/PredefinedOnly] [/CloseAfterDone] Lists
all the transcripted command definitions	
DebugCommands.McMasterUseQtWebBrowser	- Use QtWebBrowser for McMaster viewer [/on /
off]	
DebugCommands.MinorUpdate	- Trigger minor update for test purpose
DebugCommands.PopCommand	- Pop a command off of the command stack of
the current command manager	
DebugCommands.PushTestCommand	- Push a test command on the command stack of
the current command manager	
DebugCommands.RunningCommandInfo	- Shows info on the Running Commands being
managed by the Command Mgr	
DebugCommands.ShowAllAsserts	- Stop ignoring any asserts in Fusion
DebugCommands.TestToolTip	- Test Progressive ToolTip
DebugCommands.ToggleFullScreen	- Toggle fullscreen
DebugCommands.UpdateComplete	- Shows update complete for test purpose
DebugCommands.UpdateNoaction	- Test for live update no acton event process
DebugCommands.UpdateProgress	- Shows update progress for test purpose
DebugCommands.UserLanguages	- Print the user preferred languages in order

Decal

- Decal.displayFaceUV - Display the UV data for each face used by

decal

- Decal.fillDecalUV - Fill the decal uv onto body face node

Diagnostics

- Diagnostics.Assert - Shows an assert for testing purpose
- Diagnostics.BreakOnError - [On|Off] Switch break on error off or on or

report on status; affects StatusCode and Exception.

- Diagnostics.DownloadBracketsForMAS - Show download Brackets dialog for MAS and

close the dialog by "close"

- Diagnostics.DownloadIDEDlg - Show download IDE dialog: "Brackets" and

close all dialogs by "close"

- Diagnostics.DownloadNastranSolverDialog - Show download Nastran Solver dialog close

all dialogs by "close"

- Diagnostics.DownloadUrl - <url> Synchronously download the file

corresponding to the given url

- Diagnostics.GatherTool - Gather user's diagnostics data to a zip file
- Diagnostics.ListNotifications - List all the notifications
- Diagnostics.ListTestByCat - <category> List all unit tests or list tests

by category.

- Diagnostics.ListTests - [prefix] = gives a list of all tests,

optional restricted to the prefix

- Diagnostics.RecentOperations - <Number> List recent n context operations.
- Diagnostics.RemoveAllNotifications - Remove all the notifications
- Diagnostics.RunGraphicsTests - [/R] [prefix or name] [Tolerance (pixel

count)] [Tolerance (pixel value)] Run (or Rebaseline) test cases.

- Diagnostics.RunTests - This command has been deprecated. Please use

NTest.RunTests command instead or open NTest application.

- Diagnostics.RunTPFTests - [/R] [prefix or name] Run (or Rebaseline)

test cases.

- Diagnostics.SendNotification - <title> <subTitle> <informativeText>

<userData>

- Diagnostics.SimulateError - <Function Name> <TriggerCount> [/d] [/

clearall] Simulates an error for a given function for testing purpose, or deletes the simulation

- if /d is specified

Document

Document.Activate	- <path> Activates the document with the
passed path or filename	
Document.ActivateDocByKey	- Activate the document associated with
provided key	
Document.AssociateCurDocWithKey	- Associate current document's session wide id
with provided key	
Document.Close	- [sessionWideId] Closes the document with
sessionWideId or the active one	
Document.CloseAll	- Close current all opened documents in
program	
Document.CopyToDesktop	- [<filename>] Copy the active document to
desktop	
Document.Create	- <AssetTypeId> Creates a document with an
active asset of the passed type and activates a view on that asset	
Document.DumpActiveDocSchema	- <xmlFileName> Dump all meta type data schema
of current active document to a specific xml file	
Document.DumpData	- [/v /r] Dump active Document/Asset
information out, especially when program gets crashed and dump those data to log file	
Document.DumpDocSchemaByFile	- <File> <xmlFileName> [/F] [/D] [/f3d] [/
sim360] [/cam360] Dump all meta type schema to a specific xml file from a specific file or	
directory. <File> : a specific file name or folder name. <xmlFileName> : xml file name for saving	
schema. F : first parameter is a file name for direct open. D : first parameter is a directory	
and need to open related file in it. Default is for directory. f3d : open f3d file only. sim360 :	
open sim360 file only. cam360 : open cam360 file only. program will open all files in set folder	
by default	
Document.DumpOpenedDocsSchema	- <xmlFileName> Dump all meta type data schema
of current all opened document to a specific xml file	
Document.dumpSavableInfo	- Dump list of docs to be saved and unsavable
Document.ExampleDoc	- <AssetTypeId> Creates a example document to
initialize graphics global environment before running unit test, and then make sure each unit	
test has steady object counts before and after each regression test	
Document.newDesignFromLocal	- <filepath> Create a new design from a local
file	
Document.NTestCloseAll	- Close current all opened documents in
program	
Document.Open	- <filename> [/NoUI /NoGraphics /NoChangeMRU]

Opens a document and activates a view on its active asset

- Document.Path - Gets the document path for the active document
- Document.Refresh - Reopens the latest version of the active document
- Document.RemoveLinks - [<DocumentPath>] Remove all links from the given or active document
- Document.Rename - <NewDocName> Changes the document's display name
- Document.Save - [path] [sessionWideId] Saves a document matching sessionWideId or the latest one
- Document.SaveAs - [<filename>] Saves the active document as a new document
- Document.SaveThumbnail - <saveFilePath> [<docFilePath>] Save active document's thumbnail to a specific path or open a specific document and save its thumbnail to a specific path.
- Document.SoftwareVersion - Get the last saved software version.
- Document.UpdateRootComponentName - [filename] Update the root component name of an asset in opened document if needed, especially for recovered auto-saved document after rename the document
- Document.uploadThumbnailToCloud - <filePath> Upload thumbnail of input file.
- Document.ValidateDocumentData - Validates data in all opened documents in program
- Document.ValidateMaterialsData - Validates protein materials data in all opened documents in program
- DocumentTab
- DocumentTab.ShowDropDown - Shows/Hides the document tab dropdown
- Electron
- Electron.addvariant - Add new variant. Usage: addvariant variantname. Use addvariant without parameters for more information.
- Electron.boardInfo - Get current PCB2d's boardInfo. Usage: Electron.boardInfo output\_path
- Electron.Create3DPackage - Create a new 3D package. Usage: Electron.Create3DPackage footprintXmlFilePath [optional]
- Electron.getCloudPath - test
- Electron.grid - Edit grid settings. Usage: grid {on|off}

{dots|lines} multiplier size. Use grid without parameters for more information.

Electron.importSchAndBrd - Import sch and brd

Electron.layer - Edit layer settings. Usage: layer {number|name|reservedAliasName} Use layer without parameters for more information.

Electron.layerFilter\_addLayers - Add layer(s) to layer filter. Usage: addLayers layer1 ...layern. Use addLayers without parameters for more information.

Electron.layerFilter\_iteratecomponents - Iterate board components that have primitives on the specified layer. Usage: layerFilter\_iteratecomponents layer expectedexpectedcount. Use layerFilter\_iteratecomponents without parameters for more information.

Electron.layerfilter\_iteratesignal - Iterate board signal children and filter them based on a layer. Usage: layerfilter\_iteratesignal name layer all expected. Use layerfilter\_iteratesignal without parameters for more information.

Electron.placecircle - Place circle object. Usage: placecircle unit x y radius width layer setall. Use placecircle without parameters for more information.

Electron.placetext - Place text object. Usage: placetext string unit x y height layer font [fontfamily] setall. Use placetext without parameters for more information.

Electron.querypartvariants - Query part variants. Usage: querypartvariants.

Electron.queryvariant - Query variant by name and get part list. Usage: queryvariant variantname. Use queryvariant without parameters for more information.

Electron.queryvariants - Query all schematic variants. Usage: queryvariants.

Electron.removevariant - Remove existing variant. Usage: removevariant variantname. Use removevariant without parameters for more information.

Electron.run - Run EAGLE commands in Electron. Usage: Electron.run command

Electron.sch\_get\_deviceinfo - Get selected device-set / device information: library / name / value and check device / deviceSet properties. Usage: sch\_get\_deviceinfo library deviceset technology [device] [checkdeviceset] [checkdevice] [displayunit]. Use sch\_get\_deviceinfo without parameters for more information.

Electron.sch\_iterate\_partinstances - Iterate schematic document part instances that are placed on specific sheet. Usage: sch\_iterate\_partinstances sheetid partname [gatename] [displayunit] [expectedinstancecount] [attrname] Use sch\_iterate\_partinstances without parameters for more information.

Electron.sch\_placeframe - Place a frame instance in current schematic



document. Usage: sch\_placeframe fromx fromy tox toy [unit] [layer] [cols] [rows] [border]. Use sch\_placeframe without parameters for more information.

Electron.sch\_placerectangle - Place a rectangle instance in current schematic sheet. Usage: sch\_placerectangle fromx fromy tox toy [unit] [layer] [angle] [mirror]. Use sch\_placerectangle without parameters for more information.

Electron.sch\_sheet\_changedescription - Change schematic sheet description. Usage: sch\_sheet\_changedescription sheetid newdescription [usechange]. Use sch\_sheet\_changedescription without parameters for more information.

Electron.sch\_sheet\_placeinstance - Place part instance in schematic sheet. Usage: sch\_sheet\_placeinstance sheetid sourcepartname partname gatename unit x y [attrname1] [attrname2] [removeattr] [verify]. Use sch\_sheet\_placeinstance without parameters for more information.

Electron.sch\_testaliasnamevalidator - Test Alias Name Validator implementation. Usage: sch\_testaliasnamevalidator name. Use sch\_testaliasnamevalidator without parameters for more information.

Electron.sch\_testcoordinatevalidator - Test Unit Coordinate Validator implementation. Usage: sch\_testcoordinatevalidator min max value [unit]. Use sch\_testcoordinatevalidator without parameters for more information.

Electron.sch\_testintegervalidator - Test Integer Validator implementation. Usage: sch\_testintegervalidator min max value. Use sch\_testintegervalidator without parameters for more information.

Electron.sch\_testnamevalidator - Test Name Validator implementation. Usage: sch\_testnamevalidator name [type]. Use sch\_testnamevalidator without parameters for more information.

Electron.sch\_testrealnumbervalidator - Test Real Number Validator implementation. Usage: sch\_testrealnumbervalidator min max value [decimals] [unit] [unitfactor]. Use sch\_testrealnumbervalidator without parameters for more information.

Electron.sch\_testsizevalidator - Test Unit Size Validator implementation. Usage: sch\_testsizevalidator validator type unit value. Use sch\_testsizevalidator without parameters for more information.

Electron.showBom - In electronics design, show bom table. Usage: Electron.showBom [/show]/[/hide]

Electron.version - Check libeagle version

Entity

Entity.Dump - <EntityId> Dump data of the Entity with the given id

Entity.DumpReferencingEntities	- <EntityId> <AssetName> <DocumentDisplayName>
Dump all referencing entities for the given entity id and asset/document name	
EntityChange	
EntityChange.ThreadTracking	- [/on] [/off] Start/stop tracking which
threads dirty which Assets	
EntityTracking	
EntityTracking.Construct	- [/Vertices] Construct TrackedEntities from
the face, edge selections. Vertex tracked entities are made optionally.	
EntityTracking.List	- <EntityId> Returns a selection path (e.g.
0:13:6:11+14+3) from a tracked entity. This can be used to make a selection	
EntityTracking.Make	- <Path> Makes a tracked entity using the
passed path. Returns the entity id of the tracked entity	
EntityTracking.ReferenceKey	- Get the reference key of the selected
object.	
EntityTracking.Resolve	- Resolve All TrackedEntities
EntityTracking.ResolveKey	- Select the object of a Reference Key.
EntityTracking.Test	- Test some functions about entity tracking
EOT	
EOT.pretendModal	- Toggle to pretend there is a modal showing.
EOT.resetDialogShouldBeShown	- Let TryToBuyCmdDef autoshow the dialog again
EOT.resetDialogShown	- Toggle to Pretend the dialog has not been
shown yet	
EOT.showExpiredPersonalMsgBox	- Show Personal MessageBox
EOT.showExpiringPersonalMsgBox	- Show Personal MessageBox
EOT.showVerifiedStudentIncorrectEntitlement	- Show VerifiedStudentIncorrectEntitlement
notifications	
ExportCompliance	
ExportCompliance.pretendModal	- Toggle to pretend there is a modal showing.
ExportCompliance.resetDialogShown	- For Export Compliance dialog, clear the
setting for already shown dialog.	
Expressions	
Expressions.Evaluate	- <Expression> [ExpectedUnits] [/UnitSystem]
[/Id] Evaluates the passed expression	
Expressions.Format	- <Value> [ExpectedUnits] [/UnitSystem] [/Id]
Formats the passed expression	
Expressions.Parse	- [/UnitOnly] [/ValueOnly] <Expression>

[ExpectedUnit] [DisplayUnit] Parses and evaluates the passed expression

- Expressions.Tokenize - <Expression> Parses the passed expressions into tokens - the first step on the parsing process

ExtensionsFlyout

- ExtensionsFlyout.Reset - <PackId> <FeatureId> Resets dismissed dialog
- ExtensionsFlyout.Show - <CommandName> <PackId> [/modal] [/dismissable] Shows an Extension Flyout for <PackId> bound to <CommandName>.

Fusion

- Fusion.BatchRender - Starts a local batch render.
- Fusion.BreakLink - Break the link to a specific referenced component.
- Fusion.BreakLinkType - [/componentonly] [/includesubcomponents] Control if break link includes subcomponents.
- Fusion.CallstackDumpInASMAVFPEGAReport - call stack dump in ASM AV/FPE GA report [/on] [/off]
- Fusion.CancelUploads - [/force] Cancels all the ongoing uploads
- Fusion.CheckHistory - [/on] [/off] turn on/off history stream check. Select an component for special HS check.
- Fusion.CleanDanglingJointOrigins - Clean all dangling implicit joint origins
- Fusion.cleanInvalidInstances - Removes invalid occurrences]
- Fusion.CleanJointOccurrences - Removes references to joint occurrences from non-root joint occurrence groups]
- Fusion.ClearHistoryStream - Clear All ASM HS stream - model will not work after the command
- Fusion.ComputeAll - rebuild all the parametric features.
- Fusion.ComputeInMouseDown - [/on] [/off] Switches compute during in push / pull mouse drag
- Fusion.ComputeInPreview - [/on] [/off] Switches compute in preview for push / pull
- Fusion.ComputeInThread - [/on] [/off] Switches compute thread in push / pull mouse drag
- Fusion.ComputeMinimum - compute minimum of the parametric features.
- Fusion.ComputeTime - [/f] get total compute time for both serial and parallel. /f means force compute, which might be very slow.
- Fusion.ConnectionColors - /on or /off
- Fusion.ConnectionSets - Print connected occurrence sets, /ground to

include ground, /rigid for rigid sets	
Fusion.CreateAssembly	- [Instances = 8] [Depth = 2] Creates an
assembly of whatever instances to whatever depth.	
Fusion.DCProfile	- [/Detail] Show design capture profile.
Fusion.DefaultDesignType	- Two options: /Direct, /Parametric. And
others are for showing prompt dialogs.	
Fusion.diffLastTwoSnapshots	- Compare last two PM data model snapshot
result	
Fusion.DisableFeature	- [/on] [/off] enable or disable a selected
parametric feature	
Fusion.DissolveDerivedComponent	- Dissolve a Derived Component or Working
Model Feature	
Fusion.DumpAssemblyStructure	- Show Assembly structure Info.
Fusion.DumpCircularDependency	- [/r]Dump circular dependancy for the
Representative. [/g]Dump circular dependancy.	
Fusion.DumpDerivedPath	- Dump selected derived path and source path
Fusion.DumpDeriveFilterPaths	- Dump filter paths (source and derived) for
all deriving features	
Fusion.DumpFeaturesByComputeTime	- dump feature compute time by sequence
Fusion.DumpFileGraph	- Show graph of file references on the active
document or the input file URN	
Fusion.DumpGraph	- Show parametric top-down node graph.
Fusion.DumpOccurrences	- [/ByFeature] [/NoJoints] [/NoStates] Show
parametric component occurrence data.	
Fusion.Eights	- /Unique /OldNames /MultiAsset /
MultiDocument /MultiBody [Depth = 2] [NumInstsPerLevel=8] [File] Creates an assembly of eight	
instances to whatever depth, optionally using a special file, optionally without instancing, and	
optionally creating components in multiple assets.	
Fusion.EnableAnimation	- [/on] [/off] turn on/off animation
environment	
Fusion.EnableComputeEarliestForProjectFace	- enable/disable compute earliest behavior for
sketch project face.	
Fusion.EnablePatternUpdate	- Enable pattern update behavior [/off]
Fusion.EnableSameIdDocInsert	- [/on] [/off] Switch on/off to insert same id
document	
Fusion.ExportComponent	- Save a selected component to new file.

Fusion.FeatureAssociationInfo	- get the associated feature information of
the selected feature	
Fusion.FixMesh	- Fix Mesh performance issue.
Fusion.FixMeshFeature	- Fix Mesh Feature issue.
Fusion.FixTimelineGroup	- Fix Timeline Group issue.
Fusion.GraphContextDependencies	- Graph context feature dependencies [/oos for
out-of-sync] with filter options [/features, /contexts]	
Fusion.GraphCrossAssetDependencies	- Graph dependencies of selected parametric
features across asset [/features for features only]	
Fusion.ImportComponent	- [/NoMove] [/NoFit] Import file into active
document.	
Fusion.InDevelopmentCode	- It turns ON/OFF in development code
Fusion.JointAnimationDistance	- Set joint animation distance (as fraction of
screen)	
Fusion.JointAnimationTime	- Set joint animation time (sec)
Fusion.LockFeature	- [/on] [/off] Lock or unlock selected
parametric feature for timeline slider. Slider won't	be able to cross a locked feature.
Fusion.MinimumComputeTime	- [seconds] Set minimum compute time in
seconds	
Fusion.MinimumSpeedUpRatio	- Set the minimum speed-up ratio for turning
on parallel computing[>1]	
Fusion.MissingXRefsCompute	- Perform necessary Bottom Up Compute if some
XRef has gone missing, or has come back again	
Fusion.ModelingMemoryUsage	- [/PM] [/DM] Dump ASM memory usage for the
current session includes PM & DM history stream	
Fusion.MoveWA	- (X, Y, Z) Moves the selected work axis by
the specified delta.	
Fusion.MoveWP	- (X, Y, Z) Moves the selected work point to
the specified location.	
Fusion.ParallelComputing	- [/on] [/off] Switches multi-threading for
compute pipeline	
Fusion.ParallelComputingState	- Query current multi-threading state is on or
off	
Fusion.printEntityMetaInfo	- <EntityId> Print the entity meta info based
on input entity id	
Fusion.PublishToGrabCAD	- [/nopopup] Publish active document to

## GrabCAD

Fusion.RebuildOccurrences  
only, /commit failed compute

Fusion.RebuildOverrides  
to component instances in occurrence path

Fusion.RemoveExtraOverrides  
overrides, keeping first /preview /transformOnly

Fusion.ReplaceComponent  
flag (default), /cde=use CDE dialog, /qt=use qt dialog (default)

Fusion.SampleAssy  
assembly of eight instances to whatever depth.

Fusion.saveActiveCmds

Fusion.saveTextCmds

Fusion.ScaleWA  
by the specified percentage. Default is +10%

Fusion.ScaleWP  
by the specified percentage. Default is +10%

Fusion.SculptEnvInfoPOP  
showing prompt dialogs.

Fusion.SetShellManagerWidget  
manager dialog widget

Fusion.ShowAlert

Fusion.ShowLegalNotice

Fusion.SketchCurveColor

Fusion.SketchCurveHighlightColor

Fusion.SkipLoadingParametricBrep  
data for all components

Fusion.SnapshotParametricData

Fusion.Suppress  
selected parametric feature

Fusion.Timeline

Fusion.TrimFeatures

Bar

Fusion.TrimHistoryStream

Fusion.TweakMethod  
Move uses SMI\_MOVE\_FACES

- Rebuild invalid occurrences, /preview

- Rebuild Overrides due to corrupt references

- Remove extra same type, same occurrence

- /enable=force enable, /ff=enable via feature

- [Instances = 8] [Depth = 2] Creates an

- save active commands

- save text commands

- (percentage) scales the selected work axis

- (percentage) scales the selected work plane

- Two options: /On, /Off. And others are for

- Parse the transcription string for the Shell

- Show an alert with input message

- Show the legal notice for an application

- change sketch curve color.

- change sketch curve highlight color.

- [/on] [/off] Skip loading parametric Brep

- Snapshot parametric data into a text file

- [/on] [/off] Suppress or unsuppress a

- [/on] [/off] Show/Hide Timeline window

- Trim all the Features after Timeline Slider

- Trim transaction include ASM HS stream

- Tweak | Move : Tweak uses SMI\_TWEAK\_REBLEND,

<p>Fusion.UnreserveFrontOfQueues</p> <p>Fusion.Update</p> <p>solves if needed [/force]</p> <p>Fusion.XRefPlace</p> <p>Command</p> <p>Fusion.XRefReadOnly</p> <p>FUSIONDOCSEVER</p> <p>FUSIONDOCSEVER.close</p> <p>FUSIONDOCSEVER.open</p> <p>FusionMaterials</p> <p>FusionMaterials.AddDocMaterial</p> <p>Usage: FusionMaterials.AddDocMaterial &lt;matId&gt;</p> <p>FusionMaterials.AddLibMaterialToFav</p> <p>Usage: FusionMaterials.AddLibMaterialToFav &lt;materialId&gt; &lt;libId&gt; &lt;newAssetID&gt;</p> <p>FusionMaterials.AddMaterialToFav</p> <p>Usage: FusionMaterials.AddMaterialToFav &lt;materialId&gt; &lt;newAssetID&gt;</p> <p>FusionMaterials.ApplyDocAppearance</p> <p>Usage: Na.ApplyDocAppearance &lt;materialId&gt; &lt;browserDrop&gt; &lt;override&gt;</p> <p>FusionMaterials.ApplyLibAppearance</p> <p>Usage: Na.ApplyLibAppearance &lt;materialId&gt; &lt;browserDrop&gt; &lt;override&gt;</p> <p>FusionMaterials.ApplyLibPhysicalMaterial</p> <p>Usage: Na.ApplyMaterial &lt;materialId&gt;</p> <p>FusionMaterials.BeginEditMaterial</p> <p>Usage: FusionMaterials.BeginEditMaterial &lt;matId&gt;</p> <p>FusionMaterials.DeleteMaterial</p> <p>Usage: FusionMaterials.DeleteMaterial &lt;matId&gt;</p> <p>FusionMaterials.DeleteUnusedMaterial</p> <p>Usage: FusionMaterials.DeleteUnusedMaterial &lt;matId&gt;</p> <p>FusionMaterials.DuplicateMaterial</p> <p>Usage: FusionMaterials.DuplicateMaterial &lt;matId&gt;</p> <p>FusionMaterials.EndEditMaterial</p> <p>Usage: FusionMaterials.EndEditMaterial &lt;matId&gt;</p> <p>FusionMaterials.PurgeMaterial</p> <p>Usage: FusionMaterials.PurgeMaterial &lt;matId&gt;</p> <p>FusionMaterials.RemoveMaterialFromFav</p> <p>Usage: FusionMaterials.RemoveMaterialFromFav &lt;materialId&gt;</p>	<p>- Unnreserve the Lineage from Front of Queues</p> <p>- Updates invalidated joint geometry and</p> <p>- [/on] [/off] Switch to XRef for Place</p> <p>- [/on] [/off] turn on/off readonly for XRef</p> <p>- close drawing file with server only.</p> <p>- open local drawing file with server only.</p> <p>- Add doc material.</p> <p>- Material added to favorite.</p> <p>- Material added to favorite.</p> <p>- Appearance dropped on an entity.</p> <p>- Appearance dropped on an entity.</p> <p>- Appearance dropped on an entity.</p> <p>- Begin material edit.</p> <p>- Delete doc material.</p> <p>- Delete unused doc material.</p> <p>- Duplicate material.</p> <p>- End material edit.</p> <p>- Unassign and purge doc material.</p> <p>- Material added to favorite.</p>
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FusionMaterials.ReplaceMaterial - Replace material.  
 Usage: FusionMaterials.ReplaceMaterial <bSourceFromLib> <sourceId> <sinkId>  
 FusionMaterials.TweakAbsorptionDist - Tweak doc material absorption dist.  
 Usage: FusionMaterials.TweakAbsorptionDist <matId> <absorption dist>  
 FusionMaterials.TweakColor - Tweak color of current selections.  
 Usage: FusionMaterials.TweakColor <materialID> <redAsInt> <greenAsInt> <blueAsInt> <alphaAsInt>  
 FusionMaterials.TweakDensity - Tweak doc material density.  
 Usage: FusionMaterials.TweakDensity <matId> <density>  
 FusionMaterials.TweakName - Tweak doc material name.  
 Usage: FusionMaterials.TweakName <matId> <matName>  
 FusionMaterials.TweakReflectance - Tweak doc material reflectance.  
 Usage: FusionMaterials.TweakReflectance <matId> <reflectance>  
 FusionMaterials.TweakRefractiveIdx - Tweak doc material refractive index.  
 Usage: FusionMaterials.TweakRefractiveIdx <matId> <refractive index>  
 FusionMaterials.TweakRotation - Tweak doc material rotation.  
 Usage: FusionMaterials.TweakRotation <matId> <rotation>  
 FusionMaterials.TweakRoughness - Tweak doc material roughness.  
 Usage: FusionMaterials.TweakRoughness <matId> <roughness>  
 FusionMaterials.TweakScale - Tweak doc material scale.  
 Usage: FusionMaterials.TweakScale <matId> <scale>  
 FusionMaterials.TweakTranslucencyDepth - Tweak doc material translucency depth.  
 Usage: FusionMaterials.TweakTranslucencyDepth <matId> <translucency depth>  
 FusionMaterials.ValidateMaterialPanelWidgetCount -  
 FusionMaterials.ValidateMaterialPanelWidgetCount <Count>  
 FusionStaticFilesBanner  
 FusionStaticFilesBanner.AddBanner - [/Key] [/Message] [/Workspace] [/Level  
 (error, success, warning, info)] [/Priority (0 - 1000)] Add a banner to banner queue  
 FusionStaticFilesBanner.AddKeyToVec - [/Key] Add the specified string to the list  
 of seen static files banner keys  
 FusionStaticFilesBanner.ClearKeyVec - Clear the list of static files banner keys  
 that have been shown for this user  
 FusionStaticFilesBanner.CloseBanner - [/All] Close banner if any visible  
 FusionStaticFilesBanner.GetKeyVec - List static files banner keys that have been  
 shown for this user  
 FusionStaticFilesBanner.LoadListFromDisk - [/FilePath] Load static files banner list  
 from hard dirve (.json fomrat)



FusionStaticFilesBanner.LoadListFromServer	- Load static files banner from server
FusionTranslator	
FusionTranslator.SaveSPDFile	- <path> Save a spd file
GenericFileUploader	
GenericFileUploader.UploadFileWithPath	- <FileName> <FilePath> <ProjectID> <Folder>
Upload file from input path to cloud in specified folder of a project	
GenericFileUploader.UploadFileWithVersionUrn	- <FileName> <FilePath> <ProjectID> <Folder>
Upload file from input path to cloud in specified folder of a project	
Geometry	
Geometry.AddVector3ds	- <vector1 JSON> <vector2 JSON> vector add
result=(vector1 + vector2)	
Geometry.AddVector3dToPoint3d	- <point JSON> <vector JSON> result=(point +
vector)	
Geometry.AreLine3dsEqual	- <line1 as JSON> <line2 as JSON>
result=(line1 is co-linear to line2)	
Geometry.ArePlanesEqual	- <plane1 as JSON> <plane2 as JSON>
result=(plane1 is co-planar to plane2)	
Geometry.ArePoint3dEqual	- <point1 JSON> <point2 JSON> result=(point1
== point2)	
Geometry.AreVector3dEqual	- <vector1 JSON> <vector2 JSON>
result=(vector1 == vector2)	
Geometry.CrossProduct	- <vector1 JSON> <vector2 JSON> cross product
result=(vector1 x vector2)	
Geometry.DotProduct	- <vector1 JSON> <vector2 JSON> dot product
result=(vector1 . vector2)	
Geometry.Line3dCreate	- <Properties> Create a line3d from properties
startPoint+endPoint or startPoint+vector or x0,y0,z0,x1,y1,z1	
Geometry.Line3dProperties	- <Line3d> Returns the properties of a line3d
Geometry.PlaneCreate	- <Properties> Create a plane from properties
{pointOnPlane, normal}, {x0,y0,z0,x1,y1,z1} or {a,b,c,d}	
Geometry.PlaneProperties	- <Plane> Returns the properties of a plane
Geometry.SubtractPoint3dFromPoint3d	- <point1 JSON> <point2 JSON> result=(point1 -
point2)	
Geometry.SubtractVector3ds	- <vector1 JSON> <vector2 JSON> vector
subtract result=(vector1 - vector2)	
Geometry.Vector3dMultiply	- <Vector> <double> Multiply a vector by a

```

scalar
GlobalCoordinateAxes
  GlobalCoordinateAxes.Hide          - hide global coordinate axes
  GlobalCoordinateAxes.Show         - show global coordinate axes
Graphics
  Graphics.AddBorder                 - {red|green|blue} <thickness> <priority> -
Adds a border to the scene
  Graphics.AddCameraPostChange       - <entityRef> <pythonFunction> calls the
python function just after the camera is changed. The python function takes a dictionary argument
that describes the change.
  Graphics.Camera                   - Get the camera of the asset
  Graphics.ModelingOrientation       - Set default modeling orientation
  Graphics.OptionsCommand            - Set the options for graphics tests.
  Graphics.PixelCountTolerance       - [Tolerance (pixel count)] Set pixel count
tolerance for graphics tests.
  Graphics.PixelValueTolerance       - [Tolerance (pixel value)] Set pixel value
tolerance for graphics tests.
  Graphics.RemoveBorder              - {red|green|blue} - Removes the identified
border from the scene
  Graphics.RemoveCameraPostChange    - <entityRef> <pythonFunction> stops calling
the python function just before the entity is changed.
  Graphics.Snapshot                  - [/TransparentBackground][/]
DisableAntiAliasing[/EncodedString]Set the camera properties and image size
HealthCheckService
  HealthCheckService.autoHealthCheckInterval - Set the auto health check interval
  HealthCheckService.checkHealth        - Check application health
  HealthCheckService.schedule          - Auto schedule application health check
service
  HealthCheckService.subscribe         - Subscribe for health check service
  HealthCheckService.unsubscribe       - Unsubscribe for health check service
HotKey
  HotKey.Dialog                       - Hot Key Dialog [<command ID>]
  HotKey.Export                       - Export Hot Key definitions
  HotKey.Import                       - Import Hot Key definitions
  HotKey.List                         - Get a list of the current hot key bindings
Instance

```

Instance.AddTopEntity	- Add TopEntity
Instance.Delete	- Deletes the selected instance
Instance.Duplicate	- Makes a new instance pointing to the same
target	
Instance.Edit	- Activates the target asset and allows you to
edit the target component	
Instance.GetTopEntity	- Get TopEntity
Instance.Info	- Shows information on the selected instance
Instance.Nudge	- Moves the selected instance
IPC	
IPC.DispatchData	- <type><data>send the input data to the
connected client.specify the connection type,1-tcp	and 2-web socket
IPC.GenerateConsumerKeySecret	- <phrase> generate the consumer key/secret
with input phrase	
IPC.LoadConsumerKey	- <key>load the consumer key in the running
session	
IPC.ShutdownTCPServer	- shut down neutron tcp server
IPC.ShutdownWebServer	- shut down neutron web server
IPC.StartTCPServer	- start neutron tcp server. listen on 5800 by
default or otherwise input port	
IPC.StartWebServer	- start neutron web server. listen on 7681 by
default or otherwise input port	
JavaScript	
JavaScript.Disable	- Makes the Text Command Window accept
TextCommands	
JavaScript.Enable	- Makes the Text Command Window accept
JavaScript	
JavaScript.ListFunctions	- [Name:String Optional partial name of
module/function] [/Hidden] Returns JavaScript API functions in Neutron, possibly limited to a	
single module	
JavaScript.ListModules	- [Name:String Optional partial name of a
module] [/Hidden] Returns JavaScript API modules in Neutron	
JavaScript.Log	- <variables/strings> print out variables/
strings to the text command window output	
JavaScript.RunScript	- <fileName:String> run the given JavaScript
file	

**Joints**  
**Joints.Color** - [/error | /base | /dof | /pitch | /yaw | /roll] [red green blue] (/dof is default)  
**Joints.PreserveValues** - [/constrain] constrain and relax if no contacts (/minimize used for contacts), [/minimize] change, [/off] always used for drag  
**Joints.ResolveIfRelaxFails** - [/on] [/off] re-solve if relaxing joint value constraints fails  
**Joints.RigidGroupMethod** - [/Group] uses VCS groups (constraints if dragging) [/Body] uses single body at origin] [/Joints] for rigid joints  
**Joints.SmoothBallJointDrag** - [/on] [/off]  
**Joints.SolveValidSystems** - [/on] [/off] solve joints in valid systems  
**Joints.ValueAnalysis** - [/on] [/off] use analysis to relax joint value constraints  
**LocalToWorld**  
**LocalToWorld.Line3d** - <Local to World Matrix JSON> <Local Line JSON> Converts line geometry from local to world space  
**LocalToWorld.Plane** - <Local to World Matrix JSON> <Local plane JSON> Converts plane geometry from local to world space  
**LocalToWorld.Point3d** - <Local to World Matrix JSON> <Local point JSON> Converts point geometry from local to world space  
**LocalToWorld.Vector3d** - <Local to World Matrix JSON> <Local vector JSON> Converts vector geometry from local to world space  
**Managed**  
**Managed.Child** - <Entity Ref> <index> Returns the specified child of the entity ref  
**Managed.Children** - <Entity Ref> Returns the number of children of the entity ref  
**Managed.CreateChild** - <Parent Entity Ref> <Child Properties> Create a new child object based on dictionary properties (see get\_entity\_properties)  
**Managed.CreateExtensibilityEntity** - Create an extensibility entity in current active segment  
**Managed.DeleteChild** - <Parent Entity Ref> <Child Entity Ref> Deletes the specified child of the entity ref  
**Managed.IsChildOf** - <Parent Entity Ref> <Child Candidate Entity Ref> Is the second parameter a child of the first one  
**Managed.IsParentObject** - <Entity Ref> Returns true if the referenced

entity has children that can be operated upon	
Managed.Parent	- <Entity Ref>Returns the parent of the entity
ref	
Managed.RemoveExtensibilityEntity	- <Entity Ref>Remove given extensibility
entity	
Manipulator	
Manipulator.SetSnappingDegree	- specify the snapping degree for angle
manipulator, i.e: 15	
MaterialLightEdit	
MaterialLightEdit.AllowAdvEditingFor3DWoodMat	- Allow Advanced Editing for 3D Wood
Materials.	
Usage: MaterialLightEdit.AllowAdvEditingFor3DWoodMat	<AllowAdvEditing>
Materials	
Materials.DownloadAssetList	- M360 test
Materials.DownloadMaterial	- M360 test
Materials.DownloadMaterialThumbnail	- M360 test
Materials.FindPhysical	- [/ById] [Name or Id] Finds and lists the
Physical material with the specified name or id	
Materials.FindVisual	- [/ById] [Name or Id] Finds and lists the
visual material with the specified name or id	
Materials.GetMaterialProperties	- <Material Dictionary> Returns the protein
properties of a physical or visual material - expensive	for a visual material
Materials.GetUserName	- <Material Dictionary> Returns the end user
name for a physical or visual material	
Materials.List	- Lists all the materials used within the
current document	
Materials.ListPhysical	- [/Raw] Lists all the Physical materials
using protein as the source, or within the current document	
Materials.ListReducedLibrary	- Lists all materials Internal ID and UUID in
reduced library	
Materials.ListVisual	- [/Raw] Lists all the visual materials using
protein as the source	
Materials.MaterialLibraryPath	- List the reduced material library path.
Materials.QueryLibraryCategory	- M360 test
Materials.QueryLibraryContent	- M360 test
Materials.Select	- Find the users of the material and replace

the material

- Materials.ValidateMaterialUseCounts - Validate the material use count

Matrix

- Matrix.AreMatricesEqual - <matrix1 as JSON> <matrix2 as JSON>

result=(matrix1 == matrix2)

- Matrix.Identity - Returns the identity matrix
- Matrix.Multiply - <Left Matrix as JSON> <Right Matrix as JSON>

Multiplies the 2 matrices

- Matrix.PopBack - <Local to World Matrix JSON> <Leaf Matrix to

Remove> Removes a transform from the leaf (i.e. part or local) end

- Matrix.PopFront - <Local to World Matrix JSON> <Root Matrix to

Remove> Removes a transform from the root (i.e. assembly or world) end

- Matrix.PushBack - <Local to World Matrix JSON> <Leaf Matrix to

Add> Adds an extra transform at the leaf (i.e. part or local) end

- Matrix.PushFront - <Local to World Matrix JSON> <Root Matrix to

Add> Adds an extra transform at the root (i.e. assembly or world) end

- Matrix.SetToRotation - <RotationAngle> <RotationAxis>

[<RotationPoint>] Sets a matrix to perform the specified rotation

- Matrix.SetToTranslation - <TranslationVector> Sets a matrix to be a

translation by the specified vector

MetaTypes

- MetaTypes.List - Lists all the MetaType information
- MetaTypes.Versions - [version number] - query the specific valid

MetaTypes by version. or give a summary of all valid MetaTypes version

Metrics

- Metrics.State - [/on] [/off] Enable, disable the Metrics

framework

MSFCmnFeatTableWidgetCmd

- MSFCmnFeatTableWidgetCmd.UpdateTableCell - Update the table cell.

Usage: MSFNestStudyShapeTable.Update <key> <row> <column> <value>

MSFNestComponentSources

- MSFNestComponentSources.SetFeatureProperty - Sets the feature property value to the

nesting feature object.

MSFNestComponentTableCmd

- MSFNestComponentTableCmd.ChangeComponentType - Change the component type.

Usage: MSFNestComponentTableCmd.ChangeComponentType <key> <row> <component type>

MSFNestComponentTableCmd.SelectTableRows - Select the table rows.  
 Usage: MSFNestComponentTableCmd.SelectTableRows <key> <rows>

MSFNestNameConventionCmd

- MSFNestNameConventionCmd.ApplyToExisting - Set apply to existing objects tag.
- MSFNestNameConventionCmd.Export - Export name convention to hub.
- MSFNestNameConventionCmd.Import - Import name convention from hub.
- MSFNestNameConventionCmd.SetSelection - Sets the Selected rows.
- MSFNestNameConventionCmd.UpdateNameConvention - Update active selected name convention.

MSFWmdCompManagerCmd

- MSFWmdCompManagerCmd.AddCompInstances - Add Fusion component instances to the working model.

Usage: MSFWmdCompManagerCmd.AddCompInstances <component path> <quantity>

- MSFWmdCompManagerCmd.AddSource - Add external Fusion sources to the working model.

Usage: MSFWmdCompManagerCmd.AddSource <urn1>,<urn2>,...

MSFWmdComponentSources

- MSFWmdComponentSources.AddSource - Add external Fusion sources to the aggregation asset.

Usage: MSFWmdComponentSources.AddSource <urn1>,<urn2>,...

- MSFWmdComponentSources.RemoveSource - Removes external Fusion sources from the aggregation asset.

Usage: MSFWmdComponentSources.RemoveSource

- MSFWmdComponentSources.SetSelection - Sets the selection to the current view.

Usage: MSFWmdComponentSources.SetSelection <onk1>@<onk2>@...

- MSFWmdComponentSources.SwitchView - Switches the UI view to the specified number. TreeView(1), TableView(2).

Usage: MSFWmdComponentSources.SwitchView <1 | 2>

MSketch

- MSketch.BuildProfiles - profile builder
- MSketch.CreateCircle - Create a new circle. You can define Center-Radius or Center-Start-End to create a circle. Will create a circle (0,0,0) with radius 1.0 by default.
- MSketch.CreateGeometry3Ds - Create some geometries, line, arc, spline, etc.
- MSketch.CreateLine - Create a new line. You can define EndPoint(will start from origin) or StartPoint-EndPoint to create a line. Will create a line from

(1,1,0) to (5,5,0) by default.

MSketch.DeleteSketchCurves  
MSketch.EnableTangentDimension  
MSketch.RunUnitTest

- Delete selected sketch curves.
- enable/disable create tangent dimension.
- Runs a single unit test <test name> [/b =

break on error]

MSketch.SketchCreate

- Create a new sketch. Will only create a

Sketch from origin with Z direction and on rootComponent.

NamedView

NamedView.AddNamedView  
NamedView.RemoveNamedView  
NamedView.RestoreCamera

- Add a new named view
- <named view name> Remove a new named view.
- <named view name> Restore camera from named

view.

NamedView.UpdateNamedViewCamera

- <named view name> Update a new named view

camera.

NamedView.UpdateNamedViewName

- <named view name><new named view name>

Update a new named view name.

Network

Network.curlInfo  
Network.debugConnect

- Get version and feature info for libcurl
- [url] Debug a network CONNECT request with

the current settings to diagnose DNS, proxy, or TLS issues

Network.LogLevel

- [/normal] [/verbose] Network request logging

level

Options

Options.AllowLoadingOfLargeCollections

- [/true] [/false] Allow loading a file even

it exceeds expected collection size i.e. 33 Millions

Options.AnyCADForAllHubs

- [/on] [/off] Turn on/off AnyCAD feature for

all hubs

Options.AutoHideBrowser

- [/on] [/off] Auto hide browser when command

dialog is displayed.

Options.AutoRecordScript

- [/on] [/off] Switches the auto record script

option

Options.AutoReplayScript

- Set script file that auto replay when

application starts

Options.AutoSaveOnClose

- [/on] [/off] Switches auto-save-on-close on/

off or reports on the setting

Options.AutoThrottleConsolidationDuringNav

- Set to allow consolidation to be



temporarily disabled during navigation:	[/on] [/off]	
Options.AutoThrottleLODsDuringNav		- Set to allow LODs computation to be
temporarily disabled during navigation:	[/on] [/off]	
Options.AutoVersioning		- [/on] [/off] Switches auto-versioning on/off
or reports on the setting		
Options.AutoVersioningTime		- [minutes] Set time after which automatic
versioning should happen		
Options.BinaryPersistence		- [/on] [/off] Switches binary persistence on/
off or reports on the setting		
Options.BlockComplicatedRestructure		- Block complicated restructure for sketch &
work geometry [/on /off]		
Options.BlockUI		- Toggle UI Block
Options.BrowserAutoExpand		- [/on] [/off] Automatically expand as soon as
create a browser node.		
Options.BrowserColor		- Toggle displaying a colorful browser
Options.BrowserSelectionDelay		- Browser Selection Delay (sec)
Options.CachingRendering		- [/on] [/off] Turn on/off caching rendering,
where we can redisplay highlights more quickly		
Options.CERTest		- [/on] [/off] Switches the CER Crash Test
option, allowing crashes to be simulated from various pieces of code		
Options.CheckCertInfo		- Check graphics card certification: [/on] [/
off]		
Options.CheckLiveEntity		- [] get status; [/on] [/off] turn on/off ASM
live entity check.		
Options.CheckLiveEntity_session		- [/on] [/off] turn on/off ASM live entity
checkk.		
Options.ClearAnyCadFormatTranslationChannel		- Clear translation channel for AnyCAD
Options.clearTestDataAtShutdown		- [/on] [/off] Switch on/off clear test data
at program shut down		
Options.collectListControlType		- get the types of the list control
Options.ColorCycling		- [/on] [/off] Turn on/off color cycling for
default material		
Options.ConsolidateReferenceScene		- Consolidate Reference Scene: [/on] [/off]
Options.ConsolidateSketch		- Consolidate Sketch: [/on] [/off]
Options.Consolidation		- Consolidation: [/on] [/off]
Options.ConsolidationBodies		- Static batching bodies [/on] [/off]

Options.CrashRecovery  
crash recovery or reports on the setting

Options.CrashRecoveryDuringTests  
recovery during unit tests

Options.CrashRecoveryLocation

Options.CrashRecoveryTime  
crash recovery should happen

Options.CreaseGUIShowCreaseType  
on| /off]

Options.CreaseHighlight  
subds=cyan)[/on| /off]

Options.DebugEnvironment  
visibility

Options.DeferredLoading  
loading on/off or reports on the setting

Options.DeviceType

Options.DisableHDSCheck  
Health Dashboard Status

Options.DisableNotification

Options.DisplayDome  
environment(dome)

Options.DisplayGroundPlane  
environment(GroundPlane)

Options.DisplayMessageBanner

Options.doubleClickCancel

Options.driver

Driver(Note: will only be effective in next session)

Options.dumpIconInformation

Options.dumpToolbar

Options.EMBEnabled

Options.EnableAnyCadJumpTranslation

EnableAnyCadJumpTranslation option

Options.EnableAnyCadNonDestructiveUpload

EnableAnyCadNonDestructiveUpload option

Options.EnableATFTagging  
based tagging.

- [/on] [/off] Switches auto-save on/off for

- [/on] [/off] Perform auto-save for crash

- Get current crash recovery location path

- [minutes] Set time after which auto-save for

- Show crease type (nurbs/subds) option [/

- Highlights edge creases (nurbs=pink,

- [/Show] [/Hide] Control DebugEnvironment

- [/on] [/off] Switches deferred download and

- Set device type: /HAL /REF /SW

- [/on] [/off] Disable periodic checking of

- Disable notification

- [/on] [/off] Turn on/off the display of the

- [/on] [/off] Turn on/off the display of the

- [/on] [/off] Turns Message Banner on or off

- [/On] [/Off] Double click cancel

- [/DX11] [/DX9] [OpenGL] Set Default Graphics

- show a dialog to show the toolkit controls

- Dump the toolbars.

- [/on] [/off] Turn on/off Exchange Material

- [/on] [/off] Switches the

- [/on] [/off] Switches the

- [/on] [/off] Whether to enable ATF DXID

Options.EnableDataModelSnapshot [/on /off]	- Enable snapshot function for PM data model
Options.EnableFusionBasic Entitlement mode on or off	- [/on] [/off] Switches Fusion 'Basic'
Options.EnableHDRBkg	- Enable HDR background display: [/on] [/off]
Options.EnableInterrupt	- [/on] [/off] Set Operation Interrupt options
Options.enableMarkingMenu	- enable/disable marking menu
Options.EnableNewOrbitBehavior	- Enable new orbit behavior[/on  /off]
Options.EnableNewOrbitBehaviorTrackpad on  /off]	- Enable new orbit behavior for trackpad[/ on  /off]
Options.EnableNotification	- Enable notification
Options.EnableProgressBar	- [/on] [/off] Toggle the progress bar
Options.EnablePunchOutRequestAccess EnablePunchOutRequestAccess option	- [/on] [/off] Switches the
Options.EnableReimport option	- [/on] [/off] Switches the EnableReimport option
Options.EnableSelectionValidation on  /off]	- Enable selection validation for Next UV[/ on  /off]
Options.EnhancedTSpline	- Enhanced TSpline: [/on] [/off]
Options.FaceGroups	- [/on] [/off] Turn on/off color by facegroup
Options.FeatureToggle toggle information, could enable feature temporary.	- [featureId] [/on] [/off] Check Feature
Options.Files	- Lists all the files used for options
Options.ForceCircuitBreakerToFail off]	- Simulate Circuit Breaker Open State [/on / off]
Options.ForceHWGraphicsOnMacOS off]	- Enforce hardware graphics on macOS: [/on] [/ off]
Options.ForceLinkUpdateOnDocOpen open.	- [/on][/off] Force update links on document open.
Options.ForceNavTB	- [/Normal] [/Off] Force the Nav-Toolbar Off
Options.FXAA anti aliasing	- [/on] [/off] Turn on/off fast approximation
Options.GammaCorrection	- Gamma Correction: [/on] [/off]
Options.Gestura	- [/on] [/off] Turn on/off Gestura
Options.Get option with the matching id	- <id of option> - gets the value of the

```

Options.GetAnyCadFormatTranslationChannel - Get translation channel for AnyCAD
Options.GetOptions - [/dirty] [/nondefault] [/full] [/
dynamicSettings] Show either all or the dirty (need to be written to disk) or non-default (the
value isn't the default) options; if /full is used a lot of info is output
Options.GetUserLanguage - Get the user language setting
Options.GraphicsSplitTestEnabled - [/on] [/off] Turn on/off graphics split test
Options.HealthTest - [/on] [/off] Switches health test off or
reports on the setting
Options.Help - <id of option> - gets the help text (or
tooltip) of the option with the matching id
Options.HUD - Toggle turning the HUD on and off
Options.HUDDyn - Toggle turning the dynamic HUD on and off
Options.HUDLabel - Toggle HUDLabel [text]
Options.HUDLarge - Toggle turning the HUDLarge on and off
Options.HUDQAT - Toggle turning the QATHUD on and off
Options.HUDSlider - Toggle turning the HUDSlider on and off
Options.IgnoreCSOForComponentTraversal - [/on] [/off] Set Global flag to ignore
'Component Suppression Overrides' while component traversal
Options.improvePreviewForLocalDxfInsert - improve preview for Local DXF Insert
Options.InDevelopmentCode - It turns ON/OFF (Neutron) in development
code
Options.InsecureRestoreWithRecovery - [/on] [/off] Turn on or off ASM recover
restore
Options.JointHoverPreview - [/on] [/off] Switch Preview on Hover for Two
Edges
Options.JsonSanityCheck - 0: enabled for internal build only, 1:
always enabled, 2: always disabled
Options.Language - Set language to de-DE = German, en-US =
English, cs-CZ = Czech, es-ES = Spanish, fr-FR = French, hu-HU = Hungarian, it-IT = Italian, ja-
JP = Japanese, ko-KR = Korean, pl-PL = Polish, pt-BR = Portuguese Brazilian, ru-RU = Russian, zh-
CN = Chinese (PRC), zh-TW = Chinese (Taiwan)
Options.LegacyFacetingAPI - [/on] [/off] Turn on/off legacy faceting
code
Options.List - [/dirty] [/nondefault] [/full] [/
dynamicSettings] Show either all or the dirty (need to be written to disk) or non-default (the
value isn't the default) options; if /full is used a lot of info is output

```

Options.LoadPackagesAsXref	- [/on] [/off] Turn on/off xref load by
xrefGroup	
Options.LockView	- Lock the view: [/on] [/off]
Options.LODMode	- Set LOD mode: [/no] [/legacy] [/enhanced]
Options.LogGraphics	- Log graphics errors and warnings: [/on] [/ off]
Options.MarkingMenu	- [/On] [/Off] Turn On or Off the marking menu
Options.MinFPS	- Set minimum allowed frame rate before start
degrading effects and caching rendering result	
Options.MSAA	- [/on] [/off] Turn on/off multi-sampling anti
aliasing	
Options.MultiThread	- [/on] [/off] [/full] [/none] Switches basic
or full multi-threading on or off or reports on the status	
Options.MultiThreadASM	- [/on] [/off] Switches ASM processing using
multi-threading	
Options.MultiThreadBatchFacet	- [/on] [/off] Switches batch facet using
multi-threading	
Options.MultiThreadJoints	- [/on] [/off] Switches joint solving using
multi-threading	
Options.MultiThreadLoad	- [/on] [/off] Switches loading process using
multi-threading	
Options.MultiThreadOGS	- [/on] [/off] Switches OGS processing using
multi-threading	
Options.MultiThreadSave	- [/on] [/off] Switches saving process using
multi-threading	
Options.NewRecoveryNotifyTaskAtStart	- [/on] [/off] Switches auto-save on/off for
creating recovery notify task when program starts	
Options.Notification	- Test Notification Messge
Options.ObjectShadowFit	- Set object shadow Fit: /scene /view /cascade
Options.ObjectShadowType	- Set object shadow type: /sharp /soft /
soft2 /none	
Options.OfflineCacheDays	- [days] Set days for offline cache time
period(from 0.3 to 360 days for test purpose)	
Options.OfflineExpirationPeriod	- [days] Set days for offline expiration
period(from 0.001 to 14.5 days for test purpose)	
Options.OnDemandLMV	- [/on] [/off] Turn on/off OnDemandLMV

Options.OpenMultipleFiles files via the UI	- [/on] [/off] Can the user open multiple
Options.OptimizedRendering rendering, where we minimize what gets invalidated	- [/on] [/off] Turn on/off optimized
Options.PersistOGS off or reports on the setting	- [/on] [/off] Switches OGS persistence on or
Options.PixelScaleFactor	- Set global pixel-scale factor
Options.Pseudolocalize localization (to show globalized text in an artificial language) or reports on its status; a restart is needed after a change	- [/on] [/off] Switch on or off pseudo
Options.RandomTestCloudWorkflows for random transaction tests.	- [/on /off] Turn ON or OFF cloud workflows
Options.RandomTestMaxDocCount to be created by Random Txn Test framework.	- <number> Specify the max number of documents
Options.RandomTestRunTimes transaction random unit test system to run.	- <number> Specify the round for entity
Options.RDPOEnable	- [/on] [/off] Turn on/off RDP optimization
Options.RDPOThrottleEffect	- [/on] [/off] Throttle effect in RDPO
Options.RDPOThrottleFrameRateDuringNav	- [fps] Throttle framerate in RDPO
Options.RDPOThrottleMaterial	- [/on] [/off] Throttle material in RDPO
Options.RDPOThrottleShadedDuringNav	- [/on] [/off] Throttle shaded in RDPO
Options.Reload the passed files, or all options	- <Files to Reload> Reloads options, either in
Options.RemoveLogFileAtShutdown removing log file at shut down	- [/on] [/off] Switch on/off the process of
Options.RepairMode	- [/on] [/off] Toggles the repair mode
Options.RepairUploadQueuesMode upload queues, requires fusion restart after turning	- [/on] [/off] Toggles repair mode for stuck
Options.ReplaceShowInCommandDialog ShowInCommandDialog with visible	- on this option
Options.Reset	- [/on] [/off] Testing replace
Options.resetAnyCADToFirstTime preference to display the AnyCAD preview message	- Reset all options back to default
Options.ResilientSelections on or off or reports on the setting	- Two options: /On, /Off. Reset the first time
Options.Save	- [/on] [/off] Switches Resilient Selections
	- Save all the dirty options to disk

Options.SaveAllOrNone option	- [/on] [/off] Switches save all or none
Options.SaveMissingLocalizations localizations to be saved and reported on later (via	- [/on] [/off] [/report] Allows missing Options.ReportMissingLocalizations)
Options.SavePreview option	- [/on] [/off] Switches the save preview
Options.ScaleFactor default is 20	- Set scaling manipulator's scaling factor,
Options.SelectClosestItemOnly item only	- [/on] [/off] Turn on/off selecting closest
Options.SelectionEffect degraded] Use different selection effect, either always or for degraded (interactive) selections!)	- [/normal] [/fast] [/simplified] [/no] [/ degraded]
Options.SendOpenActionEvent (simulation.nonLinearStress) to create. Sends an open-action event for Inventor-Fusion workflows for testing	- <string> Specify the workspaceName.studName
Options.Set the option with the matching id	- <id of option> <Value> - sets the value of
Options.SetAnyCadFormatTranslationChannel	- Set translation channel for AnyCAD
Options.setListControlType	- set the type of the list control
Options.SetOptions dictionary and returns the number of options saved	- <dictionary> - Sets all the options in the
Options.SetSceneup	- Set Default orientation: [/y] [/z]
Options.ShowAllCommands reports on the setting	- [/on] [/off] Switches show all commands or
Options.ShowAllOptions	- Toggle show all options in the preferences
Options.showAnyCADPreviewDialog	- Display the AnyCAD preview message
Options.showDialog	- show a dialog
Options.ShowLayoutGrid	- [/on] [/off] Turn on/off Layout Grid
Options.ShowMemoryLeaksAtShutdown shut down	- [/on] [/off] Show memory leaks at program
Options.ShowMoreContextMenu	- [/On] [/Off] Change Show More Context Menu
Options.ShowQAAlert dialogs should pop up.	- [/on] [/off] Switches whether the QABugAlert
Options.showToolkitDialog	- show a dialog to show the toolkit controls
Options.showToolkitDialogV2	- show a dialog to show the toolkit controls

Options.ShowViewCubeXYZ	- Show coordinator XYZ inside view cube
Options.StrictLiveEntityCheck	- [] get status; [/on] [/off] trun on/off More
Strict ASM live entity checking.	
Options.SupremeAggressiveConsolidation	- Consolidate nodes the most aggressively: /
on /off	
Options.tasks	- 0=original, 1=timer, 2=filtered
Options.TeamhubOnboarding	- [/on] [/off] Turn on/off Teamhub Onboarding
Options.Theme	- [/Light] [/Dark] Change UI Theme
Options.Threads	- Reports on the number of threads used by
default	
Options.ToggleProjectBranchInBrowserTree	- Toggle displaying project and branch info in
browser tree	
Options.TonemappingResolveMSAA	- [/on] [/off] Turn on/off resolving MSAA in
tonemapping pass	
Options.ToolbarAddItems	- Add a toolbar item
Options.TourGuide	- Show the tour guide
Options.TourGuideExitFrame	- Show the tour guide
Options.TransactEntities	- [/on or /off] Switch on or off transaction
for Segments.	
Options.Transactions	- [/on or /off] Switch on or off the whole
transaction system.	
Options.TransparencyEffect	- Set Transparency Effect: [/simple] [/
advanced]	
Options.TransparentBackground	- [/on] [/off] Turn on/off transparent
background when saved into an image	
Options.TransProcessor	- [/on] [/off] Switches multi-thread option
flag for translation processor	
Options.TreeDialog	- Show tree dialog
Options.UseOccurrenceTree	- Use Occurrence Tree: [/on] [/off]
Options.wantToDisableWindowWhenShowSaveFileDialog	- Want to disable the window when show Save
File Dialog.	
Options.WIPFileMetaDataCache	- [/on] [/off] [/dump] Switches
WIPFileMetaData cache functionaility on/off	
ParaMesh	
ParaMesh.MigrateLegacy	- Migrate legacy MREP::MeshBody to
ParaMeshBody. DEBUG ONLY	



PAsset

- PAsset.ClearCurrent  
previously active one (so you can restore it if it is non zero) - Clears the current asset and returns the previously active one (so you can restore it if it is non zero)
- PAsset.Create  
type - <asset\_type> Create an asset matching given type
- PAsset.EntityIds  
asset using JSON - Gets a list of the entityIds for the active asset
- PAsset.GetCurrent  
asset - Returns a SessionWideID for the current asset
- PAsset.Properties  
get the properties of the asset with sessionWideId or the active one - [sessionWideId] [/limited {/propertyKeys}]
- PAsset.RootIds  
asset - Gets a list of the root ids for the active asset
- PAsset.Roots  
active asset - Gets a list of the root entities for the active asset
- PAsset.SetCurrent  
asset and returns the previously active one (so you can restore it if it is non zero) - <SessionWideID> Sets an asset as the current asset and returns the previously active one (so you can restore it if it is non zero)
- PAsset.SetProperties  
properties of the asset with sessionWideId or the active one - <properties: JSON> [sessionWideID] set the properties of the asset with sessionWideId or the active one

Paths

- Paths.Get - Get all the paths used by Neutron
- Paths.UserDirectory - Get current user specific directory

PBody

- PBody.BoundingBox  
(in JSON) of a given body - <Body Entity Ref> Returns the bounding box (in JSON) of a given body
- PBody.ClearOccurrenceProperty  
Sets the occurrence specific properties of a body - <OccurrencePath> <Body> <Property to Clear>
- PBody.Component  
body - <Body> Returns the component that owns the body
- PBody.FromSat  
import Bodies from Sat file into given component - <component:Entity Ref> <fileName:String>
- PBody.Is  
ref is a body - <Body Entity Ref> Returns true if the entity ref is a body
- PBody.OccurrenceProperties  
Gets the properties of a body occurrence; these can be restricted to only those appropriate to the body occurrence (instead of including properties coming from elsewhere - e.g. the component) - [/occSpecificOnly] <OccurrencePath> <Body>

PBody.OccurrencesOf - [/NoOverrides] <Body> [Start Component]  
 Gets the occurrences of the specified body inside the start component - this defaults to the root component for the current asset

PBody.SetOccurrenceProperties - <OccurrencePath> <Body> <Dictionary Of Properties> Sets the occurrence specific properties of a body

PBody.Tessellation - /noNormals /noUVCoords <Body Entity Ref>  
 [Quality JSON] Returns the triangles of a given body

PBody.ToSat - <body:Entity Ref>  
 <fileName:String>[versionNumber:Int default = 7][scaleFactor:Double default = 1] Export the given Body to a Sat file

**PCB**

PCB.clearCache - clear local cached model of packages  
 PCB.Create - Invoke Create PCB Workspace  
 PCB.Dump3dPackages - Dump information of package3d used in PCB3D

**document**

PCB.DumpPackagesLog - Dump information of package3d used in PCB3D  
 document to log file, please provide log file path

PCB.export - inputfile outputfile  
 PCB.loadbrdoutline - Load outline from a brd file into Fusion.

Usage: PCB.loadbrdoutline <filename>

PCB.paths - show the path of electronics rc file  
 PCB.Repair - Dump information of package3d used in PCB3D

**document**

PCB.RunUpdateCmd - Invoke Document Update CMD

**pcb3d**

pcb3d.clear - Clear 3D PCB related cache.  
 pcb3d.show - show the current content in 3D PCB cache.  
 pcb3d.update - Update 3D PCB

**PComponent**

PComponent.Bodies - [<Component>] Returns the bodies owned by a component, defaults to the root component

PComponent.BodyOccurrences - [/NoOverrides] [Component] Gets the body occurrences organized by target component. The occurrences are those reachable from the passed component (which defaults to the root component for the current asset)

PComponent.ComponentObjectChildren - <Component Object> Returns the children of the passed component object - can be NULL when the passed object is itself a component

PComponent.ComponentObjectDescendents - <Component Object> <InterfaceId> Returns the descendents of a component object, optionally restricted to those that implement an interface

PComponent.ComponentObjectOccurrences - [/NoOverrides] <InterfaceId> [Component] Gets the occurrences of component objects of a particular type, organized by component object. The occurrences are those reachable from the passed component (which defaults to the root component for the current asset)

PComponent.ComponentOccurrencesOf - [/NoOverrides] <Component Object> [Start Component] Gets the occurrences of the specified component object inside the start component - this defaults to the root component for the current asset

PComponent.ComponentOccurrences - [/NoOverrides] [Component] Gets the occurrences organized by target component. The occurrences are those reachable from the passed component (which defaults to the root component for the current asset)

PComponent.Components - [/NoOverrides] [Component] Gets the components reachable from the passed component (and includes that component), which defaults to the root component for the current asset

PComponent.Instances - Gets the instances of the passed component, without applying any overrides

PComponent.Is - <Component Entity Ref> Returns true if the referenced entity is a component

PComponent.IsComponentObject - <Component Object Candidate> Returns whether the passed object is a component object (i.e. an object that makes up a component, like a sketch or tspline)

PComponent.Occurrences - [/NoOverrides] [Component] Gets the occurrences reachable from the passed component (which defaults to the root component for the current asset)

PComponent.OccurrencesOf - [/NoOverrides] <Component> [Start Component] Gets the occurrences of the specified component inside the start component - this defaults to the root component for the current asset

PComponent.OwningComponent - <Component Object> Returns the owning component of the passed component object - can be itself when the passed object is itself a component

PComponent.ParentComponentObject - <Component Object> Returns the parent of the passed component object - can be NULL when the passed object is itself a component

PComponent.Root - Gets the active root component

PEntity

PEntity.AddEntityCustomProperties - <EntityRef> <Custom\_Properties\_JSON> Adds

custom properties to given entity

`PEntity.AddPostChange` - `<entityRef>` `<pythonFunction>` calls the python function just after the entity has changed. The python function takes a dictionary argument that describes the change.

`PEntity.AddPreChange` - `<entityRef>` `<pythonFunction>` calls the python function just before the entity is changed. The python function takes a dictionary argument that describes the change.

`PEntity.AddPreDelete` - `<entityRef>` `<pythonFunction>` calls the python function just before the entity is deleted. The python function takes a dictionary argument that describes the change.

`PEntity.EntitiesOfAnyInterfaces` - `<List of Entity Refs>` `<List of InterfaceIds>`  
Returns a list of entities which support any of the given interfaces.

`PEntity.EntitiesOfInterface` - `<List of Entity Refs>` `<InterfaceId>` Returns a list of entities which support the given interface

`PEntity.GetEntityInterfaces` - `<EntityRef>` Returns a list of interfaces the entity directly supports; the order is the entity's interface, then the base class's interface and then the other interfaces the entity supports.

`PEntity.ID` - `<EntityRef>` Returns the entity ID

`PEntity.IsEntityOfAnyInterfaces` - `<EntityRef>` `<List of InterfaceIds>` Is the entity type equal to or derived from any of given interfaces.

`PEntity.IsEntityOfInterface` - `<EntityRef>` `<InterfaceId>` Is the entity type equal to or derived from the given interface

`PEntity.Properties` - `[/limited {/limitedPropertyId}] [/  
followRefs] [/skipNulls] [/customOnly] [/noCustom]` `<EntityRef>` Returns all or selected properties of the entity as JSON

`PEntity.RemoveEntityCustomProperties` - `<EntityRef>` `<Custom_Property_Names_JSON>`  
Removes the specified custom properties from given entity

`PEntity.RemovePostChange` - `<entityRef>` `<pythonFunction>` stops calling the python function just after the entity has changed.

`PEntity.RemovePreChange` - `<entityRef>` `<pythonFunction>` stops calling the python function just before the entity is changed.

`PEntity.RemovePreDelete` - `<entityRef>` `<pythonFunction>` stops calling the python function just before the entity is deleted.

`PEntity.Segment` - `<EntityRef>` Returns entity's segment

`segmentSessionWideID`

`PEntity.SetProperties` - `<EntityRef>` `<JSON>` Updates the properties of

the entity using JSON

PFusionDocumentation

PFusionDocumentation.ExecuteJS

- Execute custom javascript on frame

PFusionDocumentation.GetInitialScale

- Get the initial scale such that 4 views are

guaranteed to fit

PFusionDocumentation.ReadFile

- Read and encode a local file

PFusionDocumentation.Snapshot

- [TransparentBackground][

DisableAntiAliasing][EncodedString][Opaque][AdjustSize] Set the camera properties and image size

PFusionDocumentation.WriteFile

- Decode and write a local file

PInstance

PInstance.Create

- <Source> <Target> [<Transform>] Creates an

instances from the source to target component

PInstance.Is

- <Instance Entity Ref> Returns true if the

referenced entity is an instance

PInstance.SourceComponent

- <Instance> Returns the component that owns

the instance

PInstance.TargetComponent

- <Instance> Returns the target component of

the instance

PInterface

PInterface.GetSubInterfaces

- <InterfaceId> Returns a list of sub-

interfaces the interface directly supports, starting with the base class's interface. Does not include the passed interface.

PInterface.IsOfInterface

- <BaseInterfaceId> <TestInterfaceId> Is the

test interface equals to the base interface or derived from it

PlasticParts

PlasticParts.BC\_TestFamily

- <Category ID> <Template ID> Opens given

family; returns validity check

PlasticParts.BC\_TestScrewModels

- [TemplateId list] Opens screw families;

returns validity check

PlasticParts.BC\_TestScrews

- Opens screw families; returns validity check

PlasticParts.BC\_Upload

- <Category ID> <Template ID> Opens given

template, applies given parameters, uploads to the cloud

PlasticParts.EnableScrewInBoss

- Enables/Disables Screw in Boss command [ON/

OFF]

PlasticParts.InputsExpressions

- It enables plastic command inputs

expressions. Command use is PlasticParts.InputsExpressions /on or /off.

PlasticParts.ResetLibraryRules	- Resets the Library Rules.
P0ccurrence	
P0ccurrence.ClearProperty	- <OccurrencePathAsJson> <PropertyName> Clears
an occurrence specific property	
P0ccurrence.GetBackInstance	- <OccurrencePathAsJson> Gets the instance at
the back of the occurrence path - the leaf instance	
P0ccurrence.GetLength	- <OccurrencePathAsJson> Gets the length
(number of instances) in the occurrence path	
P0ccurrence.GetRootOccurrence	- Creates a occurrence path for the root
component. This is zero length and is useful to traverse the instancing structure	
P0ccurrence.Is	- <occurrence dictionary> Returns true if the
passed dictionary is a valid occurrence	
P0ccurrence.PopBackInstance	- <OccurrencePathAsJson> Removes the instance
from the back of the occurrence path (i.e. the leaf instance)	
P0ccurrence.Properties	- [occSpecificOnly] <OccurrencePathAsJson>
Returns the properties of passed occurrence	
P0ccurrence.PushBackInstance	- <OccurrencePathAsJson> <InstanceRef> Pushes
the instance to the back of the transform	
P0ccurrence.SetProperties	- <OccurrencePathAsJson>
<OccurrencePropertiesAsJSON> Updates the occurrence specific properties of passed occurrence	
P0ccurrence.SourceComponent	- <OccurrencePathAsJson> Returns the source
component of the occurrence path	
P0ccurrence.TargetComponent	- <OccurrencePathAsJson> Returns the target
component of the occurrence path	
P0ccurrence.Transform	- <OccurrencePathAsJson> Returns the transform
of the occurrence path	
Preferences	
Preferences.ApplyAndClose	- Apply and close preferences dialog
Preferences.Cancel	- Close preferences dialog without applying
the changes	
PreviewablePanel	
PreviewablePanel.Preview	- Click preview.
Usage: PreviewablePanel.Preview	
PScene	
PScene.AddChildNode	- <NodeRef> <NodeRef> adds a scene node as a

child, note that a scene node is specified by a NodeRef.

`PScene.CreateBoxNode` - <JSON> [EntityRef] creates a primitive node as a box, with the 'clientType', 'qualifier' and geometry data specified in a dictionary, and connects the node with an entity if exists; returns a NodeRef instance. Note that the geometry data is the mathematical definition of a box which includes a point as the center of the box, and three axis vectors and the corresponding extensions(lengths); each axis vector must be an orthonormal set, and the length must be non-negative.

`PScene.CreateConeNode` - <JSON> [EntityRef] creates a primitive node as a cone, with the 'clientType', 'qualifier' and geometry data specified in a dictionary, and connects the node with an entity if exists; returns a NodeRef instance. Note that the geometry data is the mathematical definition of a cone which includes the center(a point) and radius of the bottom, and the direction(a vector) and length of the height.

`PScene.CreateCylinderNode` - <JSON> [EntityRef] creates a primitive node as a cylinder, with the 'clientType', 'qualifier' and geometry data specified in a dictionary, and connects the node with an entity if exists; returns a NodeRef instance. Note that the geometry data is the mathematical definition of a cylinder which includes the center(a point) and radius of the bottom, and the direction(a vector) and length of the height.

`PScene.CreateGeometryNode` - <JSON> [EntityRef] creates a geometry node, with the 'clientType', 'qualifier' and geometry data specified in a dictionary, and connects the node with an entity if exists, returns a NodeRef instance. Note that the geometry data is specified by a dictionary including the mesh type, primitive type, coordinates, normals, texture coordinates, indices, transforms, colors, etc.

`PScene.CreateGroupNode` - <JSON> [EntityRef] creates a group node, with the 'clientType', 'qualifier' and 'worldType' specified in a dictionary, and connects the node with an entity if exists, returns a NodeRef instance.

`PScene.CreateReferenceNode` - <NodePath> <AdornmentType> creates a reference node that references to the leaf node of the node path, returns a NodeRef instance. Note the 'AdornmentType' is an integer that specifies which kind of adornment graphics the reference node are created for.

`PScene.CreateRefInstanceNode` - <ReferenceNode> creates a ref-instance node that references to the target of a specified reference node, returns a NodeRef instance. Here the target of a reference node is a scene node, so, in the end, the ref-instance node and the reference node both reference to the same node.

`PScene.FilterLogicalToSceneSelection` - <LogicalSelection> returns a SceneSelection that mirrors the (logical) Selection.

`PScene.GetModelScene` - returns a NodeRef instance representing the

model scene.

- `PScene.GetNodeFromEntity` owned by the entity, returns a `NodeRef` instance. - `<EntityRef>` gets the scene node which is
  - `PScene.GetNodePathFromSelection` `SceneSelection`. - `<SceneSelection>` gets the `NodePath` from a
  - `PScene.RemoveChildNode` note that a scene node is specified by a `NodeRef`. - `<NodeRef>` `<NodeRef>` removes a child node,
  - `PScene.RemoveReferenceNode` instance node. - `<NodeRef>` removes a reference or ref-
  - `PScene.SetInstancedMesh` scene node with an instanced mesh. The instanced mesh is specified by a dictionary containing primitive type, vertex coordinates, normals, texture coordinates, indices, transforms, and colors. - `<NodeRef>` `<JSON>` sets the geometry data of a
  - `PScene.SetNodeProperties` scene node specified by a `NodeRef`, and the new properties are specified by a dictionary, and each property has a 'winTies' and a 'priority' besides the property data. Note if two properties which are the same kind, and have the same 'winTies' and 'priority', it is not defined that which property will be used. For example, if a 'colorEffect' and a 'materialEffect' have the same 'winTies' and 'priority', it is not defined that which one will be the final effect. - `<NodeRef>` `<JSON>` sets the properties of a
  - `PScene.SetSimpleMesh` scene node as a simple mesh. A simple mesh contains primitive type, vertex coordinates, normals, and texture coordinates. - `<NodeRef>` `<JSON>` sets the geometry data of a
- `PSelections`
- `PSelections.Add` the selection set for the current asset - `<JSON for selection>` Adds the selection to
  - `PSelections.AddToInput` the selection input of the current active command - `<JSON for selection>` Add the selection to
  - `PSelections.Clear` asset - Clears the selection set of the current
  - `PSelections.Get` selection set - Gets the selections in the current assets
  - `PSelections.GetInfo` selection in local space or world space. At most 'hitPoint', 'nominalHitPoint', 'point', 'plane', 'line', 'normal' will be returned. The returned info can be limited by flags. - Returns the available geometric info for the
  - `PSelections.ListFilters` that can be used in 'filters' property of select command inputs - Returns a list of all the selection filters



<p>PSelections.Remove from the selection set for the current asset</p>	<p>- &lt;JSON for selection&gt; Removes the selection</p>
<p>PSelections.Set selections for the current asset to the passed json list</p>	<p>- &lt;JSON for Selections as list&gt; Sets the</p>
PTransaction	
<p>PTransaction.Abort</p>	<p>- Abort current transaction</p>
<p>PTransaction.Commit</p>	<p>- Commit current transaction</p>
<p>PTransaction.Redo</p>	<p>- Redo current transaction</p>
<p>PTransaction.Start specified user name</p>	<p>- &lt;UserName&gt; Start a transaction with</p>
<p>PTransaction.Undo</p>	<p>- Undo current transaction</p>
Python	
<p>Python.Assert using NEUTRON_ASSERT; does nothing in a release build!</p>	<p>- &lt;Condition&gt; Asserts that condition is true</p>
<p>Python.Background can be used for python processing.</p>	<p>- /On /Off Changes whether background threads</p>
<p>Python.BreakIn the named python function is called - (e.g. 'neu_ui.show_simple_message_box' or 'neu_ui.show_simple_' will work as parameters)</p>	<p>- &lt;PartialFunctionName&gt; Adds a breakpoint when</p>
<p>Python.BugAlert checks condition is true. Bug alters works in debug and release builds; failure is considered a serious error!</p>	<p>- &lt;Condition&gt; [Error Text] A bug alert that</p>
<p>Python.CheckTkinterEnv tkinter; if it is not set, the user is told how to do so</p>	<p>- return true if environment is set for</p>
<p>Python.ClearAllBreakPoints</p>	<p>- clear breakpoints from all neutron functions</p>
<p>Python.ClearBreakPoint from the named python function - (e.g. 'neu_ui.show_simple_message_box' or 'neu_ui.show_simple_' will work as parameters)</p>	<p>- &lt;PartialFunctionName&gt; Clears a breakpoint</p>
<p>Python.ClearSingleStep function is called</p>	<p>- stops single stepping break when any neutron</p>
<p>Python.Disable</p>	<p>- Makes the Text Command Window accept</p>
TextCommands	
<p>Python.Enable</p>	<p>- Makes the Text Command Window accept Python</p>
<p>Python.Execute and runs a text command</p>	<p>- &lt;Text command string&gt; Parses a text string</p>
<p>Python.GetBreakPoints</p>	<p>- returns info on the breakpoints and single</p>

step state	
Python.GetScriptDirectories	- The script directories
Python.IDE	- launch python IDE
Python.ListFunctions	- [/Hidden] [Partial name of module/function]
Lists python API functions with their help text	
Python.ListModules	- [/Hidden] [Partial name of a module] Lists
python API modules in Neutron	
Python.RetryScriptWhenIdle	- retry last run script after UI events are
processed and onIdle fires	
Python.Run	- Run a Python script, specify either the
script filename or script string as the parameter	
Python.RunScript	- <fileName:String> run the given python
script file and take json file as input arguments	
Python.SetSingleStep	- break when any neutron function is called
Python.Stats	- Reports on the stats for background
processing	
Python.UnitTestAssert	- <Condition> <lineNumber> An unit test assert
checks condition is true.	
Refs	
Refs.DumpMetrics	- Dump the current state of the internal
metrics	
Refs.ResetMetrics	- Reset the internal metrics
Render	
Render.LegacyMaterials	- Allow legacy materials in local rendering [/
off   /on ]	
Render.RenderUnsaved	- Allow Local Render Of Unsaved Files [/off
/on ]	
Render.uploadSPD	- Local F3D to SPD translation, and upload to
Render Service	
Render.VxVerboseMode	- VX component verbose mode [/off   /on ]
ScopedLocks	
ScopedLocks.DeadlockChecks	- [/on] [/off] Enable, disable or report on
deadlock checking (i.e. nested locks by the same thread)	
Selections	
Selections.Add	- <Paths> Uses each of the paths to add a new
selection to the current asset. This can accept directly the string returned by Selections.List	

<p>Selections.AddAllEdges selection set.</p> <p>Selections.AddAllFaces selection set.</p> <p>Selections.AddAllVertices selection set.</p> <p>Selections.AllCategories</p> <p>Selections.Clear asset</p> <p>Selections.Count selection set</p> <p>Selections.CurrentCategories current command</p> <p>Selections.List AllWorldHitInfos] Lists all the selections in shorter text for every object path in the current assets selection set using entity ids</p> <p>Selections.ListAdd selection to the current asset. This can accept directly the string returned by Selections.List</p> <p>Selections.Set current asset and uses each of the paths to add a new selection. This can accept directly the string returned by Selections.List</p> <p>Selections.ToggleCategory of the specified selection category</p> <p>SheetMetal</p> <p>SheetMetal.CreateDummyRuleForAutomations specified name to use in Automations.</p> <p>SheetMetal.DeleteLibraryRule specified name from Library.</p> <p>SheetMetal.DisableLocaleFix</p> <p>SheetMetal.GetActiveRuleName</p> <p>SheetMetal.ListAllDocumentRules of current document.</p> <p>SheetMetal.ListAllLibraryRules preferences.</p> <p>SheetMetal.RecoverLibraryRules Rules</p>	<p>- Add all the edges in current asset to</p> <p>- Add all the faces in current asset to</p> <p>- Add all the vertices in current asset to</p> <p>- Shows all of the selection categories</p> <p>- Clears the selection set of the current</p> <p>- Number of selections in the current assets</p> <p>- Show the selection categories for the</p> <p>- [/HitInfo] [/WorldHitInfo] [/AllHitInfos] [/ AllWorldHitInfos]</p> <p>- &lt;Paths&gt; Uses each of the paths to add a new</p> <p>- &lt;Paths&gt; Clears the selection set for the</p> <p>- &lt;name or prefix&gt; Toggles the enabled setting</p> <p>- &lt;RuleName&gt; Creates a dummy Rule with the</p> <p>- &lt;RuleName&gt; Deletes the Rule with the</p> <p>- [/on] [/off] Disable the locale related fix</p> <p>- Gets the current active rule at preferences.</p> <p>- Gets the list of the rules at document level</p> <p>- Gets the list of the Library rules at</p> <p>- Recovers if there are any cached Library</p>
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SheetMetal.ResetLibraryRules	- Resets the Library Rules.
SheetMetal.SetActiveRule	- <RuleName> Sets the specified rule as active
sheetmetal rule.	
SheetMetal.Tag	- Look at the attributes on sheet metal bend
edge	
Sketch	
Sketch.2DVCS	- Whether enable sketch 2dvcs solving
Sketch.3d	- Whether fully enable sketch mixed 2d&3d mode
Sketch.AddLockedAngularDimensionInfo	- Add locked angular dimensioninfo to Sketch
command	
Sketch.AddLockedDimensionInfo	- Add locked dimensioninfo to Sketch command
Sketch.AddObjectToInference	- Given an object ONK to add object to
inference	
Sketch.CoincidentIcons	- Show coincident icons on points
Sketch.CoincidentTiming	- Set coincident icons show/disappear timing
Sketch.CreateGeometry3Ds	- Create some geometries, line, arc, spline,
etc.	
Sketch.CreateLegacyText	- Create Legacy text instead of New Text
Sketch.CVspline	- Enable CV spline
Sketch.DimensionTextBillboarding	- Billboard the 3d sketch dimension text.
Sketch.DisableHiddenProjection	- Disable Hidden projection
Sketch.DisableOutOfPlaneAlignPointInference	- Disable align to point inferences which are
not on current sketch plane	
Sketch.DumpGraph	- Whether dump sketch constraint graph during
solving/dragging	
Sketch.DumpProfileBody	- Dump the profile body for active sketch
Sketch.dumpProfileCurves	- Dump curve info for an selected profile
Sketch.DumpProfileWire	- Dump the profile wire body for active sketch
Sketch.DumpSketchProfileConfiguration	- Dump the profile configuration for selected
profiles	
Sketch.dumpSketchXML	- Dump sketch xml
Sketch.EnableDragOnDrawLine	- Enable mouse dragging when drawing lines
Sketch.EnableOffsetNewUI	- Enable sketch offset dimension
Sketch.FullyConstrainedAnalysis	- Enable or disable fully constrained analysis
Sketch.FullyConstrainedMenu	- Enable fully constrained status checking
context menu	

Sketch.GeoInfo	- Show sketch geometry information, select
geometry first	
Sketch.Info	- Show sketch information
Sketch.Is3D	- Show sketch information
Sketch.KeepConstraintsOn3D	- Will not remove constraints/dimensions on 3d
move	
Sketch.LightIsConstraintMet	- Use lightweight isConstraintMet API
Sketch.LineDragTiming	- Set drag timing
Sketch.Log	- Whether log sketch information (sketch
solver)	
Sketch.LogSave	- Save log to external file
Sketch.MoveGeom	- Move selected geometry and solve: x, y, z
Sketch.PrintMetric	- Print Sketch Solver metric
Sketch.RepairSketch	- Repair the small segment and gap in sketch
[0: Do nothing, 1: tiny segments, 2: tiny gaps, 3: tiny segment and gaps both]	
Sketch.ScaleOnFirstDimension	- Scale sketch after first dimension created.
Sketch.selectProfilesByFeature	- Select the profiles which are consumed by
selected feature	
Sketch.SetKeyPress	- Set Key press
Sketch.SetKeyRelease	- Set Key release
Sketch.ShowCursorPos	- Switch option - show cursor position
Sketch.ShowMetric	- Print metric of sketch solving
Sketch.showProjectSource	- Select the projected sketch curve or point,
then use this command to highlight the project source	
Sketch.ShowUnderconstrained	- Highlight all under constrained points and
curves in active sketch	
Sketch.TextWritingSystem	- Select the text writing system to use: [/
Latin /Any]	
Sketch.WideLine	- 2 px curve width
Smoke	
Smoke.All	- [/subfolderName] [/L] Execute Smoke tests
for Fusion All functionalities, default to run all All smoke tests,use /L to list all the 1st	
level subfolders under Smoke/All, use /subfolderName to execute tests under specific 1st level	
subfolder	
Smoke.Animation	- [/subfolderName] [/L] Execute Smoke tests
for Fusion Animation functionalities, default to run all Animation smoke tests,use /L to list all	

the 1st level subfolders under Smoke/Animation, use /subfolderName to execute tests under specific 1st level subfolder

Smoke.CAM - [/subfolderName] [/L] Execute Smoke tests for Fusion CAM functionalities, default to run all CAM smoke tests,use /L to list all the 1st level subfolders under Smoke/CAM, use /subfolderName to execute tests under specific 1st level subfolder

Smoke.DataManage - [/subfolderName] [/L] Execute Smoke tests for Fusion DataManage functionalities, default to run all DataManage smoke tests,use /L to list all the 1st level subfolders under Smoke/DataManage, use /subfolderName to execute tests under specific 1st level subfolder

Smoke.DataModel - [/subfolderName] [/L] Execute Smoke tests for Fusion DataModel functionalities, default to run all DataModel smoke tests,use /L to list all the 1st level subfolders under Smoke/DataModel, use /subfolderName to execute tests under specific 1st level subfolder

Smoke.Drawing - [/subfolderName] [/L] Execute Smoke tests for Fusion Drawing functionalities, default to run all Drawing smoke tests,use /L to list all the 1st level subfolders under Smoke/Drawing, use /subfolderName to execute tests under specific 1st level subfolder

Smoke.Modeling - [/subfolderName] [/L] Execute Smoke tests for Fusion Modeling functionalities, default to run all Modeling smoke tests,use /L to list all the 1st level subfolders under Smoke/Modeling, use /subfolderName to execute tests under specific 1st level subfolder

Smoke.Simulation - [/subfolderName] [/L] Execute Smoke tests for Fusion Simulation functionalities, default to run all Simulation smoke tests,use /L to list all the 1st level subfolders under Smoke/Simulation, use /subfolderName to execute tests under specific 1st level subfolder

Smoke.Visual - [/subfolderName] [/L] Execute Smoke tests for Fusion Visual functionalities, default to run all Visual smoke tests,use /L to list all the 1st level subfolders under Smoke/Visual, use /subfolderName to execute tests under specific 1st level subfolder

StrongRef

StrongRef.StartTracking - <EntityId> <MetaTypeName> Start tracking strong-refs to an Entity with the given id and with the given meta type

StrongRef.StopTracking - <EntityId> <MetaTypeName> Stop tracking strong-refs to an Entity with the given id and given type

Survey

Survey.ProfileStartupSurvey specify number of seconds to delay showing survey.	- Show the Profile Startup Survey. Optionally
Survey.ProfileStartupSurveyClearSeenAlready setting for already seen survey.	- For Profile Startup Survey, clear the
Survey.TrialStartupSurvey specify number of seconds to delay showing survey.	- Show the Trial Startup Survey. Optionally
Survey.TrialStartupSurveyClearSeenAlready for already seen survey.	- For Trial Startup Survey, clear the setting
Survey.UpdateStartupSurvey specify number of seconds to delay showing survey.	- Show the Update Startup Survey. Optionally
Survey.UpdateStartupSurveyClearSeenAlready for already seen survey.	- For Update Startup Survey, clear the setting
TextCommands	
TextCommands.Hide not listed and does not appear in autocompletion	- <SubjectArea> Hides a subject area, so it is
TextCommands.List Provides a listing of some or all the text commands	- [/Hidden] [Partial name of SubjectArea]
TextCommands.LoadDll contain new text commands!)	- [/unload] <FileName> Loads a DLL (that may
TextCommands.Run a DOS batch file)	- <FileName> Runs the commands in a file (like
TextCommands.Show subject areas non hidden, so it is listed and appears	- [/All] [<SubjectArea>] Makes one or all
TextCommands.Timing off, or switches it on or off	- [/On] [/Off] Shows whether timing is on or
TextureMapping	
TextureMapping.Copy3DWood selected body	- Copy the 3D wood texture mapping from the
TextureMapping.Paste3DWood selected bodies	- Paste the 3D wood texture mapping to the
Toolkit	
Toolkit.allToolbars position] All Toolbars	- [/items] [/all] [/verbose] [/visible] [/
Toolkit.browser nosync] [/repaint] [/layout] [/windowIndex num] Browser	- [/all] [/verbose] [/position] [/drawn] [/
Toolkit.byId	- <toolbarId> [/all] [/verbose] [/position] [/

```

drawn] [/nosync] [/repaint] [/layout] [/windowIndex num] HUD
  Toolkit.clickItem          - <toolbarId> <itemId> [<xPos>]
  Toolkit.cmdDialog          - [/all] [/verbose] [/position] [/nosync] [/
repaint] [/layout] [/windowIndex num] Command Dialog
  Toolkit.cmdToolbar        - [/all] [/verbose] [/position] [/nosync] [/
repaint] [/layout] [/windowIndex num] Command Toolbar
  Toolkit.DumpQt            - Dump QT object info. [/styles] [/class] [/
rect]
  Toolkit.hud               - [/all] [/verbose] [/position] [/drawn] [/
nosync] [/repaint] [/layout] [/windowIndex num] HUD
  Toolkit.itemsCheck        - [/record] [/print] [/clear] [/toolbarItems]
[/items]
  Toolkit.Palette           - Dump the palette of the current style.
  Toolkit.QSS               - Set application stylesheet. [<filepath>] |
[reset]
  Toolkit.QssOut            - Write the application stylesheet.
  Toolkit.Redscale          - Switch the colors in the palette of the
current style from grayscale to redscale. [/off]
  Toolkit.SetTemporaryStyle - Read UI Toolkit params. (Colors only now.)
<file> | [/reset]
  Toolkit.simText           - <value>
  Toolkit.Style             - Read UI Toolkit style overrides. [<file>] |
[/reset]
  Toolkit.StyleOut          - Write UI Toolkit styles. <file> [/all]
  Toolkit.toolbars          - [/items] [/all] [/verbose] [/position] [/
repaint] [/layout] [/windowIndex num] Displayed Toolbars
  Toolkit.toUpper           - Test the UI Toolkit's language sensitive
case conversion. <optionalString>
Translator
  Translator.Import         - <filepath> [/option1=value] [/
option2=value]... Specify the file path to open, these options are optional.
  Translator.ImportNeutralFormat - Imports a neutral format dataset
  Translator.LoadSatFile    - <path> Load a sat file
  Translator.Open           - <filepath> [/option1=value] [/
option2=value]... Specify the file path to open, these options are optional.
  Translator.Save           - <filepath> Specify the file path to save

```



current asset.

Translator.SaveSatFile

- <path> Save to a sat file

TranslatorOptions

TranslatorOptions.AssetType

- <Translator Identifier> <Asset Identifier>

Specify the asset type when creating new document

TranslatorOptions.AssetTypeId

- <Asset Identifier> Set specify asset type

when creating new document as general option value of translator open option(Note: we need to load the client translators libraries first, then running this text command)

TranslatorOptions.ExportAttributes

- [/on] [/off] Switches export attributes flag

on or off

TranslatorOptions.ExportSketches

- [/on] [/off] Switches export sketches flag

on or off

TranslatorOptions.InsertImport

- [/on] [/off] Switches import as inserting

flag on or off

TranslatorOptions.PromotePartAsAssembly

- [/on] [/off] Switches flag value of promote

part as assembly(Note: we need to load the client translators libraries first, then running this text command)

UI

UI.AddToToolbar

- <JSON> Adds a command to toolbar

UI.AddWorkspaceActivate

- <workspaceId> <pythonFunction> calls the

python function when the workspace gets activated.

UI.AddWorkspaceDeactivate

- <workspaceId> <pythonFunction> calls the

python function when the workspace gets deactivate.

UI.AddWorkspaceIsApplicable

- <workspaceId> <pythonFunction> calls the

python function when the application asks if the workspace is applicable. The python function takes a JSON argument that describes current asset type.

UI.BasicAccessDialog

- Show the Basic Access Dialog

UI.CommandDialog

- [/Modeless] [Parameters as JSON] Displays a

command dialog to the user, so he can provide input to a command or script

UI.CreateCommand

- <JSON> Creates a command that can be run via

a python script

UI.CreatePanel

- <JSON> Creates a panel and adds it to a

command toolbar.

UI.CreateWorkspace

- <JSON> Creates a workspace.

UI.CurrentCommandInfo

- Shows info on the ActiveCommand and its

inputs

UI.DeleteCommand	- <commandId> Deletes a previously created
command that can be run via a python script	
UI.DeletePanel	- <JSON> Remove a panel from a command
toolbar, and then delete the panel itself.	
UI.DeleteWorkspace	- <Workspace ID> Remove a workspace from a
command toolbar, and then delete the workspace itself.	
UI.DisableCommandInput	- <input id: String> Disable the given input
in the active command	
UI.EmulateModalCommandDialog	- <Command JSON with id, name, inputs>
Presents a command dialog almost modally and returns if it is inprogress, ok or cancel; call	
neu_dev.retry_script_when_idle on the first case	
UI.EnableCommandInput	- <input id: String> Enable the given input in
the active command	
UI.EndOfTermDialog	- Show the End Of Term Dialog
UI.ForceImmediateRepaint	- Forces an immediate repaint
UI.GetCurrentCommandToolbarInfo	- returns the current command toolbar info as
JSON. This allows a developer to know where to add his command to	
UI.GetToolbarInfo	- <toolbarId> returns the current toolbar info
as JSON. This allows a developer to know where to add his command to	
UI.ListAllToolbars	- Lists all toolbars' ids.
UI.MessageBox	- [Parameters as JSON] Displays a potentially
complex message box to the user using JSON	
UI.PythonQuickWatch	- displays python quick watch window
UI.RemoveFromToolbar	- <CommandId> <ToolbarId> Removes a command
from toolbar	
UI.RemoveWorkspaceActivate	- <workspaceId> <pythonFunction> stops calling
the python function when the workspace gets activated.	
UI.RemoveWorkspaceDeactivate	- <workspaceId> <pythonFunction> stops calling
the python function when workspace gets deactivated.	
UI.RemoveWorkspaceIsApplicable	- <workspaceId> <pythonFunction> stops calling
the python function when the application asks if the workspace is applicable.	
UI.RequeryManipulatorPlacementData	- <input id: String> Requery the mainputator
placement data of the given input in the active command	
UI.RestrictionsComingDialog	- Show the Restrictions Coming Dialog.
Optionally specify number of seconds to delay showing dialog.	
UI.RestrictionsWelcomeDialog	- Show the Restrictions Welcome Dialog.

Optionally specify number of seconds to delay showing dialog.

- UI.SaveDialogMock - Mock save dialog UI
- UI.SimpleMessageBox - [/Error] [/Warning] [Text] Displays a simple informational message box to the user - useful for debugging Python
- UI.SwitchToTab - switch to an working tab
- UI.TooltipInfo - <JSON> Adds special tooltip info to a command
- UI.TraceMessage - [Text] Displays a trace message in the debugger - useful for debugging Python

Units

- Units.DisplayInternalUnit - [/UnitOnly] [/ValueOnly] Displays the internal unit as a value for all the units
- Units.List - [/Verbose] Lists all the simple units in Neutron
- Units.MakeForMagnitude - [MagnitudePower] Makes simple units for the specified magnitude
- Units.ShowComplexUnits - Makes and displays complex units for all the simple units in Neutron

UnitSystems

- UnitSystems.Activate - [Id] Activates the passed unit system
- UnitSystems.List - Lists all the unit systems of the active asset, showing details for the active one
- UnitSystems.ShowUnitChoice - [/Id] <Id or Unit Expression> Shows the units used in the active unit system for the passed id or expression - e.g. 'UnitSystems.ShowUnitChoice J' might return 'BTU'

Validation

- Validation.ClearNotifications - Clear all notifications from NotificationCenter

ViewCube

- ViewCube.Hide - Hide View Cube.
- ViewCube.SetAsHomeView - Set the current view as Home Camera
- ViewCube.SetLocale - Specify locale vaue for view cube
- ViewCube.Show - Show View Cube.

ViewFragment

- ViewFragment.AddLayerPass - Add a new pass into view fragment and render selected component with added pass

ViewFragment.RemoveLayerPass	- Remove added layer pass from view fragment
V0	
V0.Add	- Make the selected entity Visible(/show) or
Invisible(/hide)	
V0.CheckPathVisibility	- Returns visibility of an entity, considering
the visibility of it's parent	
V0.DisableInAutomation	- Disables V0 in automation run
V0.Enable	- Enable V0(/on), Disable V0(/off), Status(/
status)	
V0.EnableInAutomation	- Enables V0 in automation run
V0.List	- [/r] List all the visibility overrides for
all referenced components of an assembly	
V0.Remove	- Remove (/hide) or (/show) override
Window	
Window.Clear	- Clear the text command window
WM	
WM.Create	- Creates a new Workig Model based on Fusion
Model	
WM.delayLoadedStatus	- Number of docs and assets loaded and skipped
WM.dumpEntityChangeDetector	- Dumps entity change detector details for
Working Model with given Working component name	
WM.loadAssets	- Load the delay loaded assets
WM.SwitchTo	- Creates a new Workig Model based on Fusion
Model	
WM.updateWorkingModelAsset	- Execute UpdateWorkingModelCmd to update WM
asset	
WorldToLocal	
WorldToLocal.Line3d	- <Local to World Matrix JSON> <World Line
JSON> Converts line geometry from world to local space	
WorldToLocal.Plane	- <Local to World Matrix JSON> <World Plane
JSON> Converts plane geometry from world to local space	
WorldToLocal.Point3d	- <Local to World Matrix JSON> <World Point
JSON> Converts point geometry from world to local space	
WorldToLocal.Vector3d	- <Local to World Matrix JSON> <World Vector
JSON> Converts vector geometry from world to local space	